Commonwealth of Kentucky
Natural Resources and Environmental Protection Cabinet
Department for Environmental Protection
Division for Air Quality
803 Schenkel Lane
Frankfort, Kentucky 40601
(502) 573-3382

AIR QUALITY PERMIT

Permittee Name:	**East Kentucky Power Cooperative, Inc.**
Mailing Address:	**P. O. Box 707, Winchester, Kentucky 40392-0707** **1301 West Second Street**
Source Name:	**Hugh L. Spurlock Power Station**
Mailing Address:	**Same as above**
Source Location:	**1301 West Second Street, Maysville, Kentucky**
Permit Type:	**Federally Enforceable**
Review Type:	**Title V/PSD**
Permit Number:	**V-97-050 (Revision II)**
Log Number:	**50089, 53775**
Application Complete Date:	**February 11, 1997, February 8, 2002**
AFS Plant ID #:	**21-161-00009**
SIC Code:	**4911**
Oris Code:	**6041**
Region:	**Huntington – Ashland**
County:	**Mason**
Issuance Date:	**December 10, 1999**
Revised Date:	**August 4, 2002** **October 15, 2004**
Expiration Date:	**December 10, 2004**

John S. Lyons, Director
Division for Air Quality

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Rev. #	Permit type	Log #	Complete Date	Issuance Date	Summary of Action
----	Initial Issuance	50089	2/11/97	12/10/99	
1	Significant revision	53775	2/08/02	8/04/02	Additional EG Unit
II	Administrative			10-15-04	Deletion of material errors

SECTION A - PERMIT AUTHORIZATION

Pursuant to a duly submitted application, which was determined to be complete on February 8, 2002, the Kentucky Division for Air Quality hereby authorizes the construction and operation of the equipment described herein in accordance with the terms and conditions of this permit. This permit has been issued under the provisions of Kentucky Revised Statutes Chapter 224 and regulations promulgated pursuant thereto.

The permittee shall not construct, reconstruct, or modify any affected facilities without first having submitted a complete application and receiving a permit for the planned activity from the permitting authority, except as provided in this permit or in the Regulation 401 KAR 52:020, Title V Permits.

Issuance of this permit does not relieve the permittee from the responsibility of obtaining any other permits, licenses, or approvals required by this Cabinet or any other federal, state, or local agency.

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS

Emissions Unit 01 (01) - Indirect Heat Exchanger (Unit 1)

Description:

Pulverized coal-fired, dry-bottom, wall-fired unit equipped with electrostatic precipitator and low
NOx burners
Number two fuel oil used for startup and stabilization
Maximum continuous rating: 3500 mmBTU/hr
Construction commenced before: 1971

Applicable Regulations:

Regulation 401 KAR 61:015, Existing indirect heat exchangers applicable to an emission unit with a capacity more than 250 MMBTU per hour and commenced before August 17, 1971.
Regulation 7, Prevention and control of emissions of particulate matter from combustion of fuel in indirect heat exchangers.

1. **Operating Limitations:**
   None

2. **Emission Limitations:**

   a) Pursuant to Regulation 401 KAR 61:015, Section 4 (4), and Regulation No. 7, particulate emissions shall not exceed 0.22 lb/MMBTU based on a three-hour average.

   b) Pursuant to Regulation 401 KAR 61:015, Section 4 (4), Regulation No. 7, emissions shall not exceed 40 percent opacity based on a six-minute average except that a maximum of 60 percent opacity is allowed for a period or aggregate of periods not more than six minutes in any 60 minutes during building a new fire, cleaning the firebox, or blowing soot.

   c) Pursuant to Regulation 401 KAR 61:015, Section 5 (1), sulfur dioxide emission shall not exceed 6.0 lbs/MMBTU based on a twenty-four-hour average.

3. **Testing Requirements:**

   a) The permittee shall submit a schedule within six months from the issuance date of this permit to conduct at least one performance test for particulate within one year following the issuance of this permit.

   b) If no additional stack tests are performed pursuant to Condition 4.d, the permittee shall conduct one performance test for particulate emissions within the third year of the term of this permit to demonstrate compliance with the allowable standard.

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

c) The permittee shall determine the opacity of emissions from the stack by EPA Reference Method 9 annually, or more frequently if requested by the Division.

4. Specific Monitoring Requirements:

a) Pursuant to Regulation 401 KAR 61:005, Section 3 and Regulation 401 KAR 50:035, Section 7(1)(c), continuous emission monitoring systems shall be installed, calibrated, maintained, and operated for measuring sulfur dioxide emissions and either oxygen or carbon dioxide emissions. The continuous emission monitoring systems shall comply with Regulation 401 KAR 61:005, Section 3, particularly, performance specification 2 of Appendix B to 40 CFR 60 or 40 CFR 75, Appendix A.

b) In accordance with Regulation 401 KAR 61:015, Section 6 (1), the sulfur content of solid fuels, as burned shall be determined in accordance with methods specified by the Division.

c) In accordance with Regulation 401 KAR 61:015, Section 6 (3) the rate of each fuel burned shall be measured daily and recorded. The heating value and ash content of fuels shall be ascertained at least once per week and recorded. The average electrical output, and the minimum and maximum hourly generation rate shall be measured and recorded daily.

d) Pursuant to Regulation 401 KAR 50:035, Section 7(1)(c), to meet the periodic monitoring requirement for particulate, the permittee shall use a continuous opacity monitor (COM). Excluding the startup, shutdown, and once per hour exemption periods, if any six-minute average opacity value exceeds the opacity standard, the permittee shall, as appropriate, initiate an inspection of the control equipment and/or the COM system and make any necessary repairs. If five (5) percent or greater of COM data (excluding startup, shutdown, and malfunction periods, data averaged over six minute period) recorded in a calendar quarter show excursions above the opacity standard, the permittee shall perform a stack test in the following calendar quarter to demonstrate compliance with the particulate standard while operating at representative conditions. The permittee shall submit a compliance test protocol as required by condition Section G(a)(21) of this permit before conducting the test. The Division may waive this testing requirement upon a demonstration that the cause(s) of the excursions have been corrected, or may require stack tests at any time pursuant to Regulation 401 KAR 50:045, Performance tests.

e) Pursuant to Regulation 401 KAR 50:035, Section 7(1)(c), to meet the periodic monitoring requirement for opacity, the permittee shall use a continuous opacity monitor (COM). Excluding the startup, shutdown, and once per hour exemption periods, if any six minute average opacity value exceeds the opacity standard, the permittee shall, as appropriate, initiate an inspection of the control equipment and/or the COM system and make any necessary repairs. If visible emissions from the stack are perceived or believed to exceed the applicable standard, the permittee shall determine the opacity of emissions by Reference Method 9. If a Method 9 test cannot be performed, the reason for not performing the test shall be documented.

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

f) Pursuant to Regulation 401 KAR 50:035, Section 7(1)(c), to meet the periodic monitoring requirement for sulfur dioxide, the permittee shall use a continuous emission monitor (CEM) Excluding the startup and shutdown periods, if any 24-hour average sulfur dioxide value exceeds the standard, the permittee shall, as appropriate, initiate an investigation of the cause of the exceedance and/or the CEM system and make any necessary repairs or take corrective actions as soon as practicable.

g) Pursuant to Regulation 401 KAR 61:005, Section 3, a continuous monitoring system for opacity shall conform to requirements of this section which include installing, calibrating, operating, and maintaining the continuous monitoring system for accurate opacity measurement, and demonstrating compliance with the applicable Performance Specification 1 of 40 CFR 60, Appendix B.

h) Pursuant to Regulation 401 KAR 61:005, Section 3(5), the Division may provide a temporary exemption from the monitoring and reporting requirements of Regulation 401 KAR 61:005, Section 3, for the continuous monitoring system during any period of monitoring system malfunction, provided that the source owner or operator shows, to the Division's satisfaction, that the malfunction was unavoidable and is being repaired as expeditiously as practicable.

5. Specific Record Keeping Requirements:

a) Records shall be kept in accordance with Regulations 401 KAR 61:005, Section 3(16) (f) and 61:015, Section 6, with the exception that the records shall be maintained for a period of five (5) years. Percentage of the COM data (excluding startup, shutdown, and malfunction data) showing excursions above the opacity standard in each calendar quarter shall be computed and recorded.

b) The permittee shall maintain the results of all compliance tests.

6. Specific Reporting Requirements:

a) Pursuant to Regulation 401 KAR 61:005, Section 3 (16), Minimum data requirements which follow shall be maintained and furnished in the format specified by the Division:

1. Owners or operators of facilities required to install continuous monitoring systems for opacity and sulfur dioxide or those utilizing fuel sampling and analysis for sulfur dioxide emissions shall submit for every calendar quarter, a written report of excess emissions and the nature and cause of the excess emissions if known. The averaging period used for data reporting should correspond to the emission standard averaging period which is a twenty-four (24) hour averaging period. All quarterly reports shall be postmarked by the thirtieth (30th) day following the end of each calendar quarter.

REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

2. For opacity measurements, the summary shall consist of the magnitude in actual percent opacity of six (6) minute averages of opacity greater than the opacity standard in the applicable standard for each hour of operation of the facility. Average values may be obtained by integration over the averaging period or by arithmetically averaging a minimum of four (4) equally spaced, instantaneous opacity measurements per minute. Any time period exempted shall be considered before determining the excess average of opacity.

3. For gaseous measurements the summary shall consist of hourly averages in the units of the applicable standard.

4. The date and time identifying each period during which the continuous monitoring system was inoperative, except for zero and span checks, and the nature of system repairs or adjustments shall be reported. Proof of continuous monitoring system performance is required as specified by the Division whenever system repairs or adjustments have been made.

5. When no excess emissions have occurred and the continuous monitoring system(s) have not been inoperative, repaired, or adjusted, such information shall be included in the report.

b) The permittee shall report the number of excursions (excluding startup, shutdown, malfunction data) above the opacity standard, date and time of excursions, opacity value of the excursions, and percentage of the COM data showing excursions above the opacity standard in each calendar quarter.

7. Specific Control Equipment Operating Conditions:

a) The electrostatic precipitator shall be operated as necessary to maintain compliance with permitted emission limitations, in accordance with manufacturer's specifications and/or standard operating practices.

b) Records regarding the maintenance of the electrostatic precipitator shall be maintained.

c) See Section E for further requirements.

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

Emissions Unit 02 (02) - Indirect Heat Exchanger (Unit 2)

Description:

Pulverized coal-fired, dry-bottom, tangentially fired unit equipped with electrostatic precipitator, low NOx burners and flue gas desulfurization (FGD) system
Number two fuel oil used for startup and stabilization
Maximum continuous rating: 4850 mmBTU/hr
Construction commenced: 1981

Applicable Regulations:

Regulation 401 KAR 59:015, New indirect heat exchangers, incorporating by reference 40 CFR 60, Subpart D, Standards of performance for fossil-fuel-fired steam generators applicable to an emissions unit more than 250 MMBTU/hour and commenced after August 17, 1971

1. **Operating Limitations:**
None

2. **Emission Limitations:**

a) Pursuant to Regulation 401 KAR 59:015, Section 4(1)(b), particulate emissions shall not exceed 0.1 lb/MMBTU based on a three-hour average.

b) Pursuant to Regulation 401 KAR 59:015, Section 4(2), emissions shall not exceed twenty (20) percent opacity based on a six-minute average except a maximum of twenty-seven (27) percent opacity for not more than one (1) six (6) minute period in any sixty (60) consecutive minutes.

c) Pursuant to Regulation 401 KAR 59:015, Section 5(1)(b), sulfur dioxide emissions shall not exceed 1.2 lbs/MMBTU based on a three-hour average.

d) Pursuant to Regulation 401 KAR 59:015, Section 6(1)(c), nitrogen oxides emissions expressed as nitrogen dioxide shall not exceed 0.7 lb/MMBTU based on a three-hour average.

3. **Testing Requirements:**

a) The permittee shall submit a schedule within six months from the issuance date of this permit to conduct at least one performance test for particulate within one year following the issuance of this permit.

b) If no additional stack tests are performed pursuant to Condition 4. d), the permittee shall conduct a performance test for particulate emissions within the third year of the term of this permit to demonstrate compliance with the applicable standard.

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

c) The permittee shall determine the opacity of emissions from the stack by EPA Reference Method 9 annually, or more frequently if requested by the Division.

4. Specific Monitoring Requirements:

a) Pursuant to Regulation 401 KAR 50:035, Section 7(1)(c), Regulation 401 KAR 59:015, Section 7, and Regulation 401 KAR 59:005, Section 4, continuous emission monitoring systems shall be installed, calibrated, maintained, and operated for measuring the opacity of emissions, sulfur dioxide emissions, nitrogen oxides emissions and either oxygen or carbon dioxide emissions. The owner or operator shall ensure the continuous emission monitoring systems are in compliance with, and the owner or operator shall comply with the requirements of Regulation 401 KAR 59:005, Section 4.

b) Pursuant to Regulation 401 KAR 50:035, Section 7(1)(c), to meet the periodic monitoring requirement for particulate, the permittee shall use a continuous opacity monitor (COM). Excluding the startup, shutdown, and once per hour exemption periods, if any six minute average opacity value exceeds the opacity standard, the permittee shall, as appropriate, initiate an inspection of the control equipment and/or the COM system and make any necessary repairs. If five (5) percent or greater of COM data (excluding startup, shutdown, and malfunction periods, data averaged over six minute period) recorded in a calendar quarter show excursions above the opacity standard, the permittee shall perform a stack test in the following calendar quarter to demonstrate compliance with the particulate standard while operating at representative conditions. The permittee shall submit a compliance test protocol as required by condition Section G(a)(21) of this permit before conducting the test. The Division may waive this testing requirement upon a demonstration that the cause(s) of the excursions have been corrected, or may require stack tests at any time pursuant to Regulation 401 KAR 50:045, Performance tests.

c) Pursuant to Regulation 401 KAR 50:035, Section 7(1)(c), to meet the periodic monitoring requirement for opacity, the permittee shall use a continuous opacity monitor (COM). Excluding the startup, shutdown, and once per hour exemption periods, if any six minute average opacity value exceeds the opacity standard, the permittee shall, as appropriate, initiate an inspection of the control equipment and/or the COM system and make any necessary repairs. If visible emissions from the stack are perceived or believed to exceed the applicable standard, the permittee shall determine the opacity of emissions by Reference Method 9. If a Method 9 test cannot be performed, the reason for not performing the test shall be documented.

d) Pursuant to Regulation 401 KAR 50:035, Section 7(1)(c), to meet the periodic monitoring requirement for sulfur dioxide, the permittee shall use a continuous emission monitor (CEM) Excluding the startup and shutdown periods, if any 3-hour average sulfur dioxide value exceeds the standard, the permittee shall, as appropriate, initiate an investigation of the cause of the exceedance and/or the CEM system and make any necessary repairs or take corrective actions as soon as practicable.

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

e) Pursuant to Regulation 401 KAR 50:035, Section 7(1)(c), to meet the periodic monitoring requirement for nitrogen oxide, the permittee shall use a continuous emission monitor (CEM).Excluding the startup and shutdown periods, if any 3-hour average nitrogen oxide value exceeds the standard, the permittee shall, as appropriate, initiate an investigation of the cause of the exceedance and/or the CEM system and make any necessary repairs or take corrective actions as soon as practicable.

f) Pursuant to Regulation 401 KAR 59:015, Section 7(3), for performance evaluations of the sulfur dioxide and nitrogen oxides continuous emission monitoring system as required under. Regulation 401 KAR 59:005, Section 4(3) and calibration checks as required under Regulation 401 KAR 59:005, Section 4(4), Reference Methods 6 or 7 shall be used as applicable as described by Regulation 401 KAR 50:015.

g) Pursuant to Regulation 401 KAR 59:015, Section 7(3), sulfur dioxide or nitric oxides (nitrogen oxides), as applicable, shall be used for preparing calibration gas mixtures under Performance Specification 2 of Appendix B to 40 CFR 60, filed by reference in Regulation 401 KAR 50:015.

h) Pursuant to Regulation 401 KAR 59:015, Section 7(3), the span value of all continuous emission monitoring system measuring opacity of emissions shall be eighty (80), ninety (90), or one-hundred (100) percent and the span value for the continuous emission monitoring system measuring sulfur dioxide and nitrogen oxides emissions shall be in accordance with Regulation 401 KAR 59:015, Appendix C or 40 CFR 75, Appendix A.

i) Continuous emission monitoring data shall be converted into the units of applicable standards using the conversion procedure described in Regulation 401 KAR 59:015, Section 7(5).

j) Pursuant to Regulation 401 KAR 59:015, Section 7(3), for an indirect heat exchanger that simultaneously burns fossil fuel and nonfossil fuel, the span value of all continuous monitoring systems shall be subject to the Division's approval.

5. Specific Record Keeping Requirements:

a) Pursuant to Regulation 401 KAR 59:005, Section 3 (4), the owner or operator of the indirect heat exchanger shall maintain a file of all measurements, including continuous monitoring system, monitoring device, and performance testing measurements; all continuous monitoring system performance evaluations; all continuous monitoring system or monitoring device calibration checks; adjustments and maintenance performed on these systems and devices; and all other information required by Regulation 401 KAR 59:005 recorded in a permanent form suitable for inspection.

b) Pursuant to Regulation 401 KAR 59:005, Section 3(2), the owner or operator of this units shall maintain the records of the occurrence and duration of any startup, shutdown, or malfunction in the operation of the emissions unit, any malfunction of the air pollution control equipment; or any period during which a continuous monitoring system or monitoring device is inoperative.

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

c) The permittee shall compute and record percentage of COM data (excluding startup, shutdown and malfunction data) showing excursions above the opacity standard in each calendar quarter.

d) The permittee shall keep the results of all compliance tests.

6. Specific Reporting Requirements:

a) Pursuant to Regulation 401 KAR 59:005, Section 3 (3), minimum data requirements which follow shall be maintained and furnished in the format specified by the Division. Owners or operators of facilities required to install continuous monitoring systems shall submit for every calendar quarter a written report of excess emissions (as defined in applicable sections) to the Division. All quarterly reports shall be postmarked by the thirtieth (30th) day following the end of each calendar quarter and shall include the following information:

1) The magnitude of the excess emission computed in accordance with the Regulation 401 KAR 59:005, Section 4(8), any conversion factors used, and the date and time of commencement and completion of each time period of excess emissions.

2) All hourly averages shall be reported for sulfur dioxide and nitrogen oxides monitors. The hourly averages shall be made available in the format specified by the Division.

3) Specific identification of each period of excess emissions that occurs during startups, shutdowns, and malfunctions of the emissions unit. The nature and cause of any malfunction (if known), the corrective action taken or preventive measures adopted.

4) The date and time identifying each period during which continuous monitoring system was inoperative except for zero and span checks, and the nature of the system repairs or adjustments shall be reported.

5) When no excess emissions have occurred or the continuous monitoring system(s) have not been inoperative, repaired, or adjusted, such information shall be stated in the report.

b) Pursuant to Regulation 401 KAR 59:015, Section 7(7), for the purposes of reports required under Regulation 401 KAR 59:005, Section 3(3), periods of excess emissions that shall be reported and defined as follows:

1) Excess emissions are defined as any six (6) minute period during which the average opacity of emissions exceeds twenty (20) percent opacity, except that one (1) six (6) minute average per hour of up to twenty-seven (27) percent opacity need not be reported.

REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

2) Excess emissions of sulfur dioxide are defined as any three (3) hour period during which the average emissions (arithmetic average of three contiguous one hour periods) exceed the applicable sulfur dioxide emissions standards.

3) Excess emissions for emissions units using a continuous monitoring system for measuring nitrogen oxides are defined as any three (3) hour period during which the average emissions (arithmetic average of three contiguous one hour periods) exceed the applicable nitrogen oxides emissions standards.

c) The permittee shall report the number of excursions (excluding startup, shutdown, malfunction data) above the opacity standard, date and time of excursions, opacity value of the excursions, and percentage of the COM data showing excursions above the opacity standard in each calendar quarter.

7. Specific Control Equipment Operating Conditions:

a) The electrostatic precipitator (ESP), flue gas desulfurization unit (FGD), and the low NO_X burner shall be operated as necessary to maintain compliance with permitted emission limitations, consistence with manufacturer's specifications and / or good operating practices.

b) Records regarding the maintenance of the control equipments shall be maintained.

c) See Section E for further requirements.

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

Emissions Unit 03 (03) - Indirect Heat Exchanger (Auxiliary Boiler)

Description:

Number two fuel oil-fired
Maximum continuous rating: 144 mmBTU/hr
Construction commenced: 1971

Applicable Regulations:

Regulations 401 KAR 61:015, Existing indirect heat exchangers, commenced before August 17, 1971, and Regulation 7, Prevention and Control of Emissions of Particulate Matter from Combustion of Fuel in Indirect Heat Exchangers

1. Operating Limitations:

None

2. Emission Limitations:

a) Pursuant to Regulation 401 KAR 61:015, Section 4 (4), and Regulation No. 7, particulate emissions shall not exceed 0.22 lb/MMBtu based on a three-hour average.

b) Pursuant to Regulation 401 KAR 61:015, Section 4 (4), and Regulation No. 7, emissions shall not exceed 40 percent opacity based on a six-minute average except that a maximum of 60 percent opacity is allowed for a period or aggregate of periods not more than six minutes in any sixty minutes during building a new fire, cleaning the firebox, or blowing soot.

c) Pursuant to Regulation 401 KAR 61:015, Section 5 (1), sulfur dioxide emissions shall not exceed 4.0 lb/MMBtu based on a twenty-four-hour average

3. Testing Requirements:

When the unit is in operation, the permittee shall read, weather permitting, the opacity of the emissions from the stack using EPA Reference Method 9 once per day.

4. Specific Monitoring Requirements:

a) Pursuant to Regulation 401 KAR 61:015, Section 6 (2), the sulfur content of liquid fuels, as burned, shall be determined based on certification from the fuel supplier. This certification shall include the name of the oil supplier and a statement that the oil complies with the specifications under the definition for distillate oil in Regulation 401KAR 60:043.

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

b) In accordance with Regulation 401 KAR 61:015, Section 6 (3), the rate of fuel burned shall be measured daily on an as-burned basis and recorded while the boiler is in operation.

5. Specific Record Keeping Requirements:

a) Records documenting the amount of fuel oil consumed shall be maintained.

b) Records documenting the sulfur content and heating value of the fuel oil shall be maintained.

c) The permittee shall keep the results of all compliance tests.

6. Specific Reporting Requirements:

a) See Section F.

7. Specific Control Equipment Operating Conditions:

NA

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

Emissions Unit 04 (04) - Coal Handling Operations

Description:

Transfer tower # 1 & 2, reclaim hoppers onto coal conveyor, crusher house, and conveyor drop points.

Operating rate: 4000 tons/hr
Construction commenced : 1981

Applicable Regulations:

Regulation 401 KAR 60:250, Standards of performance for coal preparation plant adopted by reference 40 CFR 60 Subpart Y applicable to conveyors and crushers which process more than 200 tons of coal per day and commenced after October 24, 1974 .

1. Operating Limitations:

None

2. Emission Limitations:

Pursuant to Regulation 401 KAR 60:250, 40 CFR 60.252, the owner or operator subject to the provisions of this regulation shall not cause to be discharged into the atmosphere from any coal processing and conveying equipment, coal storage system, or transfer and loading system processing coal, emissions which exhibit 20 percent opacity or greater.

3. Testing Requirements:

Pursuant to Regulation 401 KAR 60:250, 40 CFR 60.254, EPA Reference Method 9 and the procedures in 40 CFR 60.11 shall be used to determine opacity quarterly.

4. Specific Monitoring Requirements:

The permittee shall perform a qualitative visual observation of the opacity of emissions from each stack on a weekly basis and maintained a log of the observation. If visible emissions from any stack are perceived or believed to exceed the applicable standard, the permittee shall determined the opacity of emissions by Reference Method 9 and instigate an inspection of the control equipment for any necessary repairs.

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

5. Specific Record Keeping Requirements:

a) The permittee shall maintain the records of amount of coal received and processed.

b) The permittee shall maintain the result of all compliance tests.

6. Specific Reporting Requirements:

See Section F.

7. Specific Control Equipment Operating Conditions:

a) The control equipment enclosures, wet suppression, and baghouses used to control particulate emissions shall be operated as necessary to maintain compliance with applicable requirements, in accordance with manufacturer's specifications and / or standard operating practices.

b) Records regarding the maintenance of the control equipment shall be maintained.

c) See Section E for further requirements.

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

Emissions Unit 06 Two fly ash silos (Truck loadout)

Description:

The maximum loading rate: 300 tons/hr.

Applicable Regulations:

Regulation 401 KAR 63:010, Fugitive emissions.
Construction commenced: 1993

Applicable Requirements:

a) Pursuant to Regulation 401 KAR 63:010, Section 3, reasonable precautions shall be taken to prevent particulate matter from becoming airborne. Such reasonable precautions shall include, when applicable, but not be limited to the following:

1. Application and maintenance of asphalt, water, or suitable chemicals on roads, material stockpiles, and other surfaces which can create airborne dusts; and,

2. Installation and use of hoods, fans, and fabric filters to enclose and vent the handling of dusty materials, or the use of water sprays or other measures to suppress the dust emissions during handling.

b) Pursuant to Regulation 401 KAR 63:010, Section 3, discharge of visible fugitive dust emissions beyond the property line is prohibited.

1. Operating Limitations:

None

2. Emission Limitations:

None

3. Testing Requirements:

None

4. Specific Monitoring Requirements:

The permittee shall monitor the amount of ash processed.

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

5. Specific Record Keeping Requirements:

Records of the ash processed shall be maintained.

6. Specific Reporting Requirements:

See Section F.

7. Specific Control Equipment Operating Conditions:

a) The enclosures and water spray system shall be operated as necessary to maintain compliance with applicable requirements, in accordance with manufacturer's specifications
and / or standard engineering practices.

b) Records regarding the maintenance of the control equipment shall be maintained.

c) See Section E for further requirements.

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

Emissions Unit 07 (03) - Coal Handling Operations

Description:

Rotary railcar unloader, barge unloader, sampling tower, radial stacker off-loading onto coal pile, haul roads, and yard area.

Operating rate: 4,600 tons/hr
Construction commenced: Prior 1970

Applicable Regulations:

Regulation 401 KAR 63:010, Fugitive emissions.

Applicable Requirements:

a) Pursuant to Regulation 401 KAR 63:010, Section 3, reasonable precautions shall be taken to prevent particulate matter from becoming airborne. Such reasonable precautions shall include, when applicable, but not be limited to the following:

1. Application and maintenance of asphalt, water, or suitable chemicals on roads, material stockpiles, and other surfaces which can create airborne dusts;

2. Installation and use of hoods, fans, and fabric filters to enclose and vent the handling of dusty materials, or the use of water sprays or other measures to suppress the dust emissions during handling;

b) Pursuant to Regulation 401 KAR 63:010, Section 3, discharge of visible fugitive dust emissions beyond the property line is prohibited.

1. Operating Limitations:

None

2. Emission Limitations:

None

3. Testing Requirements:

None

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

4. Specific Monitoring Requirements:

The permittee shall monitor the amount of coal received and processed.

5. Specific Record Keeping Requirements:

Records of the amount of coal received and processed shall be maintained.

6. Specific Reporting Requirements:

See Section F.

7. Specific Control Equipment Operating Conditions:

a) The control equipment (including but not limited to hoods, enclosures, use of dust suppressant/foam, telescopic chute, and water spray system) shall be operated as necessary to maintain compliance with applicable requirements in accordance with manufacturer's specifications and/or standard operating practices.

b) Records regarding the maintenance of the control equipment shall be maintained.

c) See Section E for further requirements.

d) See Section F.

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

Emissions Unit 08 Circulating Fluidized Bed Unit #3

Description:

Circulating Fluidized Bed Unit, coal fired unit
Equipped with baghouse, flash dryer absorber, and SNCR
No. 2 Fuel Oil used for startup and stabilization
Nominal rating 2,500 MMBTU/hour
Construction Commence Date: June, 2002

Applicable Regulations:

The following regulations, as in effect at the time of permit issuance:
Regulation 401 KAR 59:016, New electric utility steam generating units.
Regulation 401 KAR 60:005, incorporating by reference 40 CFR 60, Subpart Da, Standards of performance for electric utility steam generating units applicable to an emission unit with a capacity of more than 250 mmBTU per hour and commenced on or after September 19, 1978.
Regulation 40 CFR 60, Appendix F, Quality Assurance Procedures
Regulation 401 KAR 51:017, Prevention of significant deterioration of air quality applicable to major construction or modification commenced after September 22, 1982.
Regulation 40 CFR 63, Subpart B, Requirements for Control Technology Determinations with Major Sources in Accordance with Clean Air Act Sections, Sections 112 (g) and 112(j).
Regulation 40 CFR 64, Compliance Assurance Monitoring
Regulation 40 CFR Part 75, Continuous Emission Monitoring
Regulation 401 KAR 63:020, Potentially hazardous matter or toxic substances

1. Operating Limitations:

Pursuant to Regulation 401 KAR 51:017, the permittee shall install control devices selected as BACT.

2. Emission Limitations:

a) Pursuant to Regulations 401 KAR 59:016, Section 3(1)(b), and 401 KAR 51:017, particulate emissions shall not exceed 0.015 lb/MMBTU heat input based on a three-hour average. Pursuant to Regulation 401 KAR 59:016, Section 6(1), compliance with the 0.015 lb/MMBTU emission limitation shall constitute compliance with the 99% reduction requirement contained in Regulation 401 KAR 59:016, Section 3(1)(b).

b) Pursuant to Regulation 401 KAR 59:016, Section 3(2), emissions from this unit shall not exceed twenty (20) percent opacity based on a six-minute average except that a maximum of twenty-seven (27) percent is allowed for not more than one (1) six (6) minute period per hour.

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

c) Pursuant to Regulation 401 KAR 59:016, Section 4(1) and 401 KAR 51:017, sulfur dioxide emissions shall not exceed 0.20 lbs/MMBTU based on a twenty-four (24) hour block average. Compliance with the twenty-four (24) hour average shall constitute compliance with the thirty (30) day rolling average contained in Regulation 401 KAR 59:016.

d) Pursuant to Regulation 401 KAR 51:017, carbon monoxide emissions shall not exceed 0.15 lbs/MMBTU based on a thirty (30) day rolling average.

e) Pursuant to Regulation 401 KAR 51:017, nitrogen oxides emissions shall not exceed 0.07 lbs/MMBTU based on a thirty (30) day rolling average. The NO_x emission limit is waived for the specific SNCR optimization study activity as detailed in Section D (2 and 3). Should the optimization study indicate that 0.07 lbs/mmBTU is unachievable, the NOx emissions rate shall be the optimized rate up to a maximum of 0.10 lbs/MMBTU..

f) Pursuant to Regulation 401 KAR 51:017, VOC emissions shall not exceed 0.0036 lbs/MMBTU based on a thirty (30) day rolling average.

g) Pursuant to Regulation 401 KAR 51:017, mercury emissions shall not exceed 0.00000265 lbs/MMBTU based on a quarterly average.

h) Pursuant to Regulation 401 KAR 51:017, fluoride emissions shall not exceed 0.0000466 lbs/MMBTU based on a thirty (30) day rolling average.

i) Pursuant to Regulation 401 KAR 51:017, lead emissions shall not exceed 0.0000063 lbs/MMBTU based on a quarterly average.

j) Pursuant to Regulation 401 KAR 51:017, beryllium emissions shall not exceed 0.0000146 lbs/MMBTU based on a quarterly average.

k) Pursuant to Regulation 401 KAR 51:017, sulfuric acid mist emissions shall not exceed 0.005 lbs/MMBTU based on a thirty (30) day average.

l) Pursuant to Regulation 401 KAR 59:016, Section 6(3), particulate matter and nitrogen oxides emission standards apply at all times except during periods of startup, shutdown, or malfunction. The sulfur dioxide emission standard under Section 4 applies at all times except during periods of startup, shutdown, or malfunction.

m) Pursuant to 40 CFR. 63.43(d), case-by-case MACT determination for the Unit # 3 Boiler, shall not exceed the following hazardous air pollutants (HAP) emission limitations listed below:

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

HAP	Emissions Limitation (lb/mmBTU)
VOC	0.0036
Mercury	0.00000265
Hydrogen Chloride	0.0035
Hydrogen Fluoride	0.00047
Beryllium	0.0000146
Lead	0.0000063
Metal HAPS (as PM_{10})	0.015

3. Testing Requirements:

a) Pursuant to Regulation 401 KAR 50:055, Section 2, the permittee shall demonstrate compliance with the applicable emission standards within sixty (60) days after achieving the maximum production rate at which the affected facility will be operated, but not later than 180 days after initial startup of such facility. Opacity data from the Continuous Opacity Monitor (COM) during the performance test for particulate shall be correlated with the particulate emissions rate to establish an average opacity level pursuant to Condition 4.b below.

b) If no additional stack tests are performed pursuant to Condition 4.b, the permittee shall conduct a performance test for particulate emissions within the third year after demonstrating compliance with the allowable standard.

c) The permittee shall determine the opacity of emissions from the stack by EPA Reference Method 9 annually, or more frequently if requested by the Division for Air Quality.

d) See Section D

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

e) **Case-by-Case MACT**
Pursuant to 40 CFR 63.43(g)(2)(ii), case-by-case MACT determination, and 40 CFR.70.6(c), the permittee shall demonstrate compliance with the applicable emissions limitations for the following HAPs:

HAP	Emissions Limitation	Compliance Method
VOC (VOC HAPs)	0.0036 lb/mmBTU	Method 25A
Mercury	0.00000265 lb/mmBTU	Method 29
Hydrogen Chloride	0.0035 lb/mmBTU	Method 26A
Hydrogen Fluoride	0.00047 lb/mmBTU	Method 26A
Beryllium	0.0000146 lb/mmBTU	Method 29
Lead	0.0000063 lb/mmBTU	Method 29
Metal HAPs (as PM_{10})	0.015 lb/mmBTU	Method 5

Pursuant to 40 CFR 63.43(g)(2)(ii) case-by case MACT determination, and 40 CFR 70.6(c), the permittee shall demonstrate compliance with these emissions limitations within 60 days after achieving the maximum production rate at which the facility will be operated, but not later than 180 days after initial startup of the emissions unit. See Section G(d)5

During the initial compliance test, the permittee shall take a sample of the fuel "as fired" and analyze it to determine the HAP content in the fuel. This information shall be used to establish a correlation between the sample's HAP content and HAP emissions for monitoring purposes. The permittee shall demonstrate compliance with these emission limits each year to validate the correlation between grab samples HAP content and HAP emissions. After three years of demonstrating compliance and the correlation between the samples and emissions, the permittee may petition the Division to use the grab samples as a surrogate for compliance testing.

4. Specific Monitoring Requirements:

a) Pursuant to Regulation 401 KAR 52:020, Section 10, Regulation 401 KAR 59:016, Section 7 and Regulation 401 KAR 59:005, Section 4, the permittee shall install, calibrate, maintain, and operate continuous emission monitoring systems for measuring the opacity of emissions, sulfur dioxide emissions, nitrogen oxides emissions, carbon monoxide emissions, and either oxygen or carbon dioxide emissions. Oxygen or carbon dioxide shall be monitored at each location where sulfur dioxide or nitrogen oxides emissions are monitored. The owner or operator shall ensure the continuous emission monitoring systems are in compliance with the requirements of Regulation 401 KAR 59:005, Section 4. Compliance with the Continuous Emission Monitoring provisions of 40CFR 75 will constitute compliance with the monitor requirements of 401 KAR 59:016.

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

b) Pursuant to Regulation 401 KAR 52:020, Section 10, Regulation 401 KAR59:016, Section 7(1), to meet the periodic monitoring requirement for particulate, the permittee shall use a continuous opacity monitor (COM). The average opacity level determined pursuant to Condition 3.a above, plus 5% opacity will become the opacity trigger level. Excluding the startup, shut down, and once per hour exemption periods, if any six minute average opacity (averaged over a period of 3 hours) value exceeds the opacity trigger level, the permittee shall, as appropriate, initiate an inspection of the control equipment and/or the COM system and make any necessary repairs. If five (5) percent or greater of COM data (excluding startup, shut down, and malfunction periods, data averaged over a three hour period) recorded in a calendar quarter show excursions above the opacity trigger level, the permittee shall perform a stack test in the following calendar quarter to demonstrate compliance with the particulate standard while operating at representative conditions. The permittee shall submit a compliance test protocol as required by Section G (a)(19) of this permit before conducting the test. The Division may waive this testing requirement upon a demonstration that the cause(s) of the excursions have been corrected, or may require stack tests at any time pursuant to Regulation 401 KAR 50:045, Performance Tests.

c) Pursuant to Regulation 401 KAR 52:020, Section 10, Regulation 401 KAR 59:016, Section 7(1), to meet the periodic monitoring requirement for opacity, the permittee shall use a continuous opacity monitor (COM). The permittee shall perform a qualitative visual observation of the opacity of emissions from the stack on a daily basis and maintain a log of the observations. If visible emissions from the stack are seen, the permittee shall determine the opacity of emissions by Reference Method 9, or by accepting the concurrent read out from the COM and instigating an inspection of the control equipment and making any necessary repairs. If no visible emissions, which would trigger Reference Method 9 determinations or equipment repairs, are observed during any six consecutive week period, the frequency of observation may be reduced to weekly. Observations shall revert to daily if visible emissions, which would trigger Reference Method 9 determinations or equipment repairs, are observed during any weekly observation. Daily observations shall continue until such time that no visible emissions, which would trigger Reference Method 9 determinations or equipment repairs, are observed during any three consecutive week period.

d) Pursuant to Regulation 401 KAR 52:020, Section 10, Regulation 401 KAR 59:016, Section 7(2), to meet the periodic monitoring requirement for sulfur dioxide, the permittee shall use a continuous emission monitor (CEM). Excluding the startup and shut down periods, if any 24-hour block average sulfur dioxide value exceeds that standard, the permittee shall, as appropriate, initiate an inspection of the control equipment and/or the CEM system and make any necessary repairs as soon as practicable.

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

e) Pursuant to Regulation 401 KAR 50:020, Section 10, Regulation 401 KAR 59:016, Section 7(3), to meet the periodic monitoring requirement for nitrogen oxide, the permittee shall use a continuous emission monitor (CEM). Excluding the startup and shut down periods, if any 30 day rolling average nitrogen oxide value exceeds the standard, the permittee shall, as appropriate, initiate an inspection of the control equipment and/or CEM system and make any necessary repairs or take any corrective actions as soon as practicable.

f) Pursuant to Regulation 401 KAR 50:020, Section 10, Regulation 401 KAR 51:017, and Regulation 401 KAR 59:016, Section 7(2), the permittee shall monitor sulfur dioxide emissions at the outlet of the flash dryer absorber using a continuous monitoring system.

g) Pursuant to Regulation 401 KAR 50:020, Section 10, Regulation 401 KAR 59:016, Section 7(3), to meet the periodic monitoring requirement for carbon monoxide, the permittee shall use a continuous emission monitor (CEM). Excluding the startup and shut down periods, if any 30 day rolling average carbon monoxide value exceeds the standard, the permittee shall, as appropriate, initiate an inspection of the control equipment and/or CEM system and make any necessary repairs or take any corrective actions as soon as practicable. The carbon monoxide CEM system shall be operated and maintained in accordance with Performance Specification 4 of Appendix B to 40 CFR 60 filed by reference in Regulation 401 KAR 50:015.

h) Pursuant to Regulation 401 KAR 50:020, Section 10, Regulation 401 KAR 59:016, Section 7(5), all the continuous emission monitoring systems shall be operated and data shall be recorded during all periods of operation of the emissions unit including periods of startup, shutdown, malfunction or emergency conditions, except for continuous monitoring system breakdowns, repairs, calibration checks, and zero and span adjustments.

i) Pursuant to Regulation 401 KAR 50:020, Section 10, Regulation 401 KAR 59:016, Section 7(6), when emission data are not obtained because of continuous monitoring system breakdowns, repairs, calibration checks, and zero and span adjustments, the permittee shall obtain emission data by using other monitoring systems as approved by the Division or the reference methods as described in Regulation 401 KAR 59:016, Section 7(8) to provide emission data for a minimum of eighteen hours in at least twenty-two out of thirty successive boiler operating days.

j) Pursuant to Regulation 401 KAR 59:016, Section 7(9), the following procedures shall be used to conduct monitoring system performance evaluations and calibration checks as required under Regulation 401 KAR 59:005, Section 4(3).

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

1) Reference Method 6, 7, or 10 as applicable shall be used for conducting performance evaluations of sulfur dioxide, nitrogen oxides and carbon monoxide continuous emission monitoring systems.

2) Sulfur dioxide or nitrogen oxides, as applicable, shall be used for preparing calibration mixtures under Performance Specification 2 of Appendix B to 40 CFR 60 filed by reference in Regulation 401 KAR 50:015.

3) The span value for the continuous monitoring system for measuring opacity shall be between sixty (60) and eight (80) percent and the span value for the continuous monitoring system for measuring nitrogen oxides shall be as specified in 40 CFR 75, Appendix A.

4) The span value for the continuous monitoring system for measuring sulfur dioxide the outlet of the control device shall be 50 percent of the maximum estimated hourly potential emissions of the fuel fires, or span values as specified in 40 CFR 75, Appendix A.

k) The permittee shall take a grab sample of the fuel "as fired" to the CFB on a quarterly basis. The samples taken on a quarterly basis shall be analyzed to determine beryllium content. The samples taken on a quarterly basis shall also be analyzed to determine the applicable hazardous air pollutant content. This data, along with the baseline data established during the initial compliance test, shall be used to demonstrate compliance with the emission limits for these pollutants. Depending on the results of the quarterly tests, additional steps may be required to ensure that applicable hazardous air pollutant content emission limits are not exceeded.

l) **CAM Requirements**

The permittee shall use Sulfur Dioxide (SO_2) and Nitrogen Oxides (NO_x) Continuous Emissions Monitors (CEMs) as continuous compliance determination methods to preclude applicability of 40CFR 64 for those specific parameters, and to demonstrate compliance with Best Available Control Technology (BACT) limits contained in this permit.

1) The permittee shall conduct the monitoring and fulfill the other obligations specified in C.F.R. §§ 64.7 through 64.9.

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

2) Pursuant to 40CFR 64.6, the table below shows the monitoring approach for Particulate Matter (PM).

TABLE: MONITORING APPROACH

Applicable CAM Requirement	PM/PM_{10} limits
General Requirements	0.015 lb/MMBtu filterable particulates
	20% Opacity
Monitoring Methods and Location	Initial Source Test & (1) installation of a COM at outlet of the baghouse and monitoring of the baghouse pressure drop and other relevant parameters identified during initial testing* or (2) visual observation of plume from stack
Indicator Range	(1) Initial source testing to establish COM and equipment parameter indicator ranges, including the baghouse pressure drop, as appropriate or (2) Initial source testing to establish compliance with the PM limit at 20% opacity. The permittee must conduct daily stack observations. If visible emissions are seen, the permittee must conduct a Method 9 observation to determine the opacity of the emissions or shall accept the concurrent read-out from the COM.
Data Collection Frequency	(1) Continuous COM and control device operating parameters or (2) daily observations
Averaging Period	(1)Opacity – 6 minute averages or (2) Visible Emission Surveys – 6 minutes
Recordkeeping	COM data system records and control device parameters will be maintained for a period of 5 years or visible observation records and method 9 observations will be kept in a designated logbook and maintained for a period of 5 years.
QA/QC	COM will be maintained and operated in accordance with 401KAR 59:005 / 40CFR 60 Appendix B and/or other requirements as applicable, baghouse monitored parameters will be maintained and operated in accordance with manufacturer recommendations; or records of Method 9 certifications will be maintained

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

Case-by- Case MACT

Pursuant to 40 CFR 63.43 (g)(2)(ii), case-by-case MACT determination, 40 CFR 70.6(a)(3)(i)(B), and 40 CFR 64.6(c)(1), the permittee shall conduct the following monitoring to assure compliance with the applicable requirements:

HAP	Emissions Limitation	Monitoring Method
VOC (VOC HAPs)		The continuous compliance monitoring method used to assess compliance with the carbon monoxide emission limitation shall be used as an indicator of good combustion practices. Compliance with the carbon monoxide emission limitation assures compliance with the VOC (VOC HAP) emission limit.
Mercury		The permittee shall take a sample of fuel "as fired" to the boiler on a quarterly basis. The samples taken on a quarterly basis shall be analyzed to determine mercury content. Emissions shall be estimated based on the emission correlations established during the most recent stack test. The continuous compliance monitoring method used to assess compliance with the carbon monoxide emission limitation shall be used as an indicator of good combustion practices. The continuous compliance monitoring method used to assess compliance with the sulfur dioxide emission limitations shall also be used as an indicator or proper flash dryer absorber operational procedures. Compliance with the carbon monoxide and sulfur dioxide emission limitations assures compliance with the mercury emission limit.
Hydrogen Chloride		The continuous compliance monitoring method used to assess compliance with the sulfur dioxide emission limitations shall be used to assure compliance with the hydrogen chloride emission limit. Compliance with the sulfur dioxide emission limitations assures compliance with the hydrogen chloride emissions limit.
Hydrogen Fluoride		The continuous compliance monitoring method used to assess compliance with the sulfur dioxide emission limitations shall be used to assure compliance with the hydrogen fluoride emission limit. Compliance with the sulfur dioxide emission limitations assures compliance with the hydrogen fluoride emissions limit.
Beryllium		The permittee shall take a sample of fuel "as fired" to the coal-fired boiler on a quarterly basis. The samples taken on a quarterly basis shall be analyzed to determine beryllium. Emissions shall be estimated based on the emission correlations established during the most recent stack test. [The continuous compliance monitoring method used to assess compliance with the PM emission limitations shall be used to assure compliance with the beryllium emission limit as an indicator of proper operation and removal of beryllium from the exhaust stream.]

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

HAP	Emissions Limitation	Monitoring Method
Lead		Same as beryllium
Metal HAPs		The continuous compliance monitoring method used to assess compliance with the PM emission limitations shall be used to assure compliance with the metal HAPs emission limit as an indicator of proper operation and removal of metal HAPs from the exhaust stream. Compliance with the PM emission limitation assures compliance with the metal HAPs emissions limit.

Pursuant to 40 CFR 63.43 (g)(2)(ii), case-by-case MACT determination, 40 CFR 70.6(a)(3)(i)(B), and 40 CFR 64.6(c)(1), the permittee shall conduct a compliance demonstration each year to validate the correlation between the coal samples HAP content and HAP emissions. The test procedure shall consist of taking grab samples of coal "as-fired" concurrent with the compliance demonstration to correlate the HAP content of coal with the HAP emissions. The coal samples shall be analyzed for HAP content and the correlation with the HAP emissions shall be established based on the analyzed HAP content and stack emissions.

5. Specific Record Keeping Requirements:

a) Pursuant to Regulation 401 KAR 59:005, Section 3(4), the owner or operator of the CFB shall maintain a file of all measurements, including continuous monitoring system, monitoring device, and performance testing measurements; all continuous monitoring system performance evaluations; all continuous monitoring system or monitoring device calibration checks; adjustments and maintenance performed on these systems and devices; and all other information required by Regulation 401 KAR 59:005 recorded in a permanent form suitable for inspection.

b) Pursuant to Regulation 401 KAR 59:005, Section 3(2), the owner or operator of this unit shall maintain the records of the occurrence and duration of any startup, shutdown, or malfunction in the operation of the affected facility, any malfunction of the air pollution control equipment; or any period during which a continuous monitoring system or monitoring device is inoperative.

c) The permittee shall compute and record percentage of the COM data (excluding startup, shut down, and malfunction data) showing excursions above the opacity trigger level in each calendar quarter.

d) The permittee shall maintain the results of all compliance tests.

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

e) **Case-by-Case MACT**

1) Pursuant to 40 CFR 63.43(g)(2)(ii) and 40 CFR 70.6(a)(3)(i)(B), the permittee shall keep quarterly records of the sample's HAP analyses. The permittee shall keep these records according to the general recordkeeping requirements specified in Section F.1. and F.2. of this permit.

2) Pursuant to 40 CFR 63.43(g)(2)(ii), 40 CFR 70.6(a)(3)(i)(B), and 40 CFR 64.9(b), the permittee shall record continuously the SO_2 emission rate at the outlet of the flash dryer absorber using the CEM system.

3) Pursuant to 40 CFR 63.43(g)(2)(ii), 40 CFR 70.6(a)(3)(i)(B), and 40 CFR 64.9(b), the permittee shall record continuously the opacity of visual emissions at the outlet of the baghouse using the COM system.

4) Pursuant to 40 CFR 63.43(g)(2)(ii), 40 CFR 70.6(a)(3)(i)(B), and 40 CFR 64.9(b), the permittee shall record continuously the carbon monoxide emission rate using the CEM system.

6. Specific Reporting Requirements:

a) Pursuant to Regulation 401 KAR 59:005, Section 3(3), minimum data requirements which follow shall be maintained and furnished in the format specified by the Division. Owners or operators of facilities required to install continuous monitoring systems shall submit for every calendar quarter a written report of excess emissions (as defined in applicable sections) to the Division for Air Quality. All quarterly reports shall be postmarked by the thirtieth (30th) day following the end of each calendar quarter and shall include the following information:

1) The magnitude of the excess emission computed in accordance with the Regulation 401 KAR 59:005, Section 4(8), any conversion factors used, and the date and time of commencement and completion of each time period of excess emissions.

2) All hourly averages shall be reported for sulfur dioxide, nitrogen oxides and carbon monoxide monitors. The hourly averages shall be made available in the format specified by the Division for Air Quality.

3) Specific identification of each period of excess emissions that occurs during startups, shutdowns, and malfunctions of the affected facility. The nature and cause of any malfunction (if known), the corrective action taken or preventive measures adopted.

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

4) The date and time identifying each period during which continuous monitoring system was inoperative except for zero and span checks and the nature of the system repairs or adjustments.

5) When no excess emissions have occurred or the continuous monitoring system(s) have not been inoperative, repaired, or adjusted, such information shall be stated in the report.

6) For sulfur dioxide and nitrogen oxides, all information listed in Regulation 401 KAR 59:016, Section 9(2)(a-i) shall be reported for each twenty-four (24) hour period.

7) If the minimum quantity of emission data as required by Regulation 401 KAR 59:016, Section 7(6)(a-e) is not obtained for any thirty successive boiler operating days, the permittee shall report all the information listed in Regulation 401 KAR 59:016, Section 9(3) for that thirty day period.

8) If any sulfur dioxide standards as specified in Regulation 401 KAR 59:016, Section 4(a and b) are exceeded during emergency conditions because of control system malfunction, the permittee shall submit a signed statement including all information as described in Regulation 401 KAR 59:016, Section 9(4).

9) For any periods for which opacity, sulfur dioxide, nitrogen oxides or carbon monoxide emissions data are not available, the permittee shall submit a signed statement pursuant to Regulation 401 KAR 59:016, Section 9(6) indicating if any changes were made in the operation of the emission control system during the period of data unavailability. Operations of control system and emissions unit during periods of data unavailability are to be compared with operation of the control system and emissions unit before and following the period of data unavailability.

10) The permittee shall submit a signed statement including all information as described in Regulation 401 KAR 59:016, Section 9(7).

11) Pursuant to Regulation 401 KAR 59:016, Section 9(8), for the purposes of the reports required under Regulation 401 KAR 59:005, Section 4, periods of excess emissions are defined as all six (6) minute periods during which the average opacity exceeds the applicable opacity standards as specified in Subsection 2 of this section. Opacity levels in excess of the applicable opacity standard and the date of such excesses are to be submitted to the Division each calendar quarter.

b) Pursuant to Regulation 401 KAR 59:005, Section 3(3), the permittee shall report the number of excursions (excluding startup, shut down, malfunction data) above the opacity trigger level, date and time of excursions, opacity value of the excursions, and

percentage of the COM data showing excursions above the opacity trigger level in each calendar quarter to the Division Regional Office.

c) **CAM Requirements**

Pursuant to 40 C.F.R. §64.9(a) the permittee shall report the following information according to the general reporting requirements specified in Section F.5. of this permit:

1) Number of exceedances or excursions;
2) Duration of each exceedance or excursion;
3) Cause of each exceedance or excursion;
4) Corrective actions taken on each exceedance or excursion;
5) Number of monitoring equipment downtime incidents;
6) Duration of each monitoring equipment downtime incident;
7) Cause of each monitoring equipment downtime incident;
8) Description of actions taken to implement a quality improvement plan and upon completion of the quality improvement plan, documentation that the plan was completed and reduced the likelihood of similar excursions or exceedances.

7. Specific Control Equipment Operating Conditions:

a) The CFB, baghouse, SNCR, and flash dryer absorber shall be operated as necessary to maintain compliance with permitted emission limitations, in accordance with manufacturer's specifications and/or standard operating practices. Compliance with this condition for particulate matter is in accordance with the CAM submittal for this unit.

b) Records regarding the maintenance of the control equipment shall be maintained.

c) See Section E for further requirements.

d) **Case-by-Case MACT**

Pursuant to 40 CFR §63.43(d), the permittee shall install and operate the following control technology to meet the case-by-case MACT emission limitations while the emission unit is in operation:

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

HAP	Control Technology
VOC (VOC HAPs)	Good combustion practices
Mercury	Selective non-catalytic reduction (SNCR), flash dryer absorber, baghouse
Beryllium, Lead	Baghouse
Acid Gases (Hydrogen Chloride and Hydrogen Fluoride)	Flash dryer absorber and baghouse
Metals (Metal HAPs)	Baghouse

Control Equipment Operating Conditions for the flash dryer absorber:

Pursuant to 40 CFR 63.43(g)(2)(ii), case-by-case MACT determination, 40 CFR 70.6(a)(3)(i)(B), and 40 CFR 64.6(c)(2), the permittee shall monitor SO_2 emissions continuously using the CEM system. Compliance with the SO_2 emissions limitation assures proper operation of the flash dryer absorber.

Control Equipment Operating Conditions for the baghouse:

Pursuant to 40 CFR 63.43(g)(2)(ii), case-by-case MACT determination, 40 CFR 70.6(a)(3)(i)(B), and 40 CFR 64.6(c)(2), the permittee shall maintain the opacity of visual emissions to less than 20 % as measured by the COM system. Compliance with the opacity limitation assures proper operation of the baghouse.

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

Emissions Unit 09 Coal Storage Pile

Description:

Machine Point 01 Coal Storage Pile

Control Equipment: Wet Suppression, Telescopic Chute, or Dust Suppressant
Operating Rate: 750 tons/hour
Construction Commenced Date: June, 2002

Applicable Regulations:
Regulation 401 KAR 63:010, Fugitive emissions
Regulation 401 KAR 51:017, Prevention of significant deterioration of air quality applicable to major construction or modification commenced after September 22, 1982.

1. Operating Limitations:

a) Pursuant to Regulation 401 KAR 63:010, Section 3, reasonable precautions shall be taken to prevent particulate matter from become airborne. Such reasonable precautions shall include, when applicable, but not limited to the following:

1) application and maintenance of asphalt, water, or suitable chemicals on roads, material stockpiles, and other surfaces which can create airborne dust; and

2) installation and use of compaction or other measures to suppress the dust emissions during handling.

b) Pursuant to Regulation 401 KAR 63:010, Section 3, discharge of visible fugitive dust emissions beyond the property line is prohibited.

c) Pursuant to Regulation 401 KAR 51:017, the permittee shall install control methods selected as BACT. See above.

2. Emission Limitations:

None.

3. Testing Requirements:

None

4. Specific Monitoring Requirements:

The permittee shall monitor fugitive emissions from the coal pile as required by BACT.

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

5. Specific Record Keeping Requirements:

The permittee shall maintain records of the amount of coal received and processed.

6. Specific Reporting Requirements:

See Section F, Conditions 5, 6, 7 and 8.

7. Specific Control Equipment Operating Conditions:

a) The control equipment (including, but not limited to, use of dust suppressant/foam, telescopic chute, and wet suppression) shall be operated as necessary to maintain compliance with applicable requirements of Regulation 401 KAR 63:010, and in accordance with manufacturer's specifications and/or standard operating practices.

b) Records regarding the maintenance of the control equipment shall be maintained.

c) See Section E for further requirements.

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

Emissions Unit 10 Coal Silos (4)

Description:

Machine Point 01 Coal Silos

Control Equipment: Baghouse
Operating Rate: 750 tons/hour
Construction Commenced Date: June, 2002

Applicable Regulations:

Regulation 401 KAR 60:005, which incorporates by reference 40 CFR 60 Subpart Y, Standards of Performance for Coal Preparation Plants.
Regulation 401 KAR 51:017, Prevention of significant deterioration of air quality applicable to major construction or modification commenced after September 22, 1982.

1. Operating Limitations:

Pursuant to Regulation 401 KAR 51:017, the Permittee shall install control methods selected as BACT.

2. Emission Limitations:

a) Pursuant to 40 CFR 60.252, the owner or operator shall not cause to be discharged into the atmosphere from any coal processing and conveying equipment, coal storage system, or coal transfer and loading system processing coal, gases which exhibit twenty (20) percent opacity or greater.

b) Pursuant to 401 KAR 51:017, the baghouse utilized shall exhibit a design control efficiency of at least 99 %.

3. Testing Requirements:

Pursuant to Regulation 401 KAR 60.254, the permittee shall determine the opacity of emissions from each stack by EPA Reference Method 9 annually, or more frequently if requested by the Division for Air Quality.

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

4. Specific Monitoring Requirements:

The permittee must conduct weekly stack observations and maintain a log of the observations. If visible emissions are seen, the permittee must conduct a Method 9 observation to determine the opacity of the emissions. If the 20% opacity standard is exceeded, averaged on three 6-minute readings, the permittee shall initiate an inspection of the control equipment for any necessary repairs.

5. Specific Record Keeping Requirements:

a) The permittee shall monitor the amount of coal received and processed.

b) The permittee shall maintain the results of all compliance tests. The permittee shall record each week the date, time and opacity of the visible emissions monitoring. In case of an exceedance, the permittee must record the reason (if known) and the measures taken to minimize or eliminate the exceedance.

6. Specific Reporting Requirements:

See Section F, Conditions 5, 6, 7 and 8.

7. Specific Control Equipment Operating Conditions:

a) The baghouse shall be maintained and operated as necessary to ensure the emission unit is in compliance with the applicable requirements of Regulation 40CFR 60, Subpart Y and in accordance with manufacturer's specifications and/ or standard operating practices.

b) Records regarding the maintenance of the control equipment shall be maintained.

c) See Section E for further requirements.

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

Emissions Unit 11 Bed Ash Handling System

Description:

Machine Point 01 – Bed Ash Silo

Control Equipment: Baghouse
Operating Rate: 44 tons/hour
Construction Commenced Date: June, 2002

Applicable Regulations:

Regulation 401 KAR 59:010, New Process Operations
Regulation 401 KAR 51:017, Prevention of significant deterioration of air quality applicable to major construction or modification commenced after September 22, 1982.

1. Operating Limitations:

Pursuant to Regulation 401 KAR 51:017, the permittee shall install control equipment selected as BACT.

2. Emission Limitations:

a) Pursuant to Regulation 401 KAR 51:017 and 401 KAR 59:010, the permittee shall not cause to be discharged into the atmosphere from the above mentioned emissions units gases which exhibit twenty (20) percent opacity or greater.

b) Pursuant to 401 KAR 51:017, the baghouse utilized shall exhibit a design control efficiency of at least 99 %.

c) Pursuant to State Regulation 401 KAR 59:010, particulate matter emissions shall not exceed $[3.59 (P)^{0.62}]$ lbs/hr based on a three-hour average, where P is the processing rate in tons/hr.

3. Testing Requirements:

a) Pursuant to Regulation 401 KAR 59:010, the permittee shall determine the opacity of emissions from each stack by EPA Reference Method 9 annually, or more frequently if requested by the Division for Air Quality.

b) EPA Reference Method 5 or Method 17 shall be performed as required by the Division for Air Quality to determine particulate matter concentration.

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

4. Specific Monitoring Requirements:

a) The permittee shall perform a qualitative visual observation of the opacity of emissions from each stack on a weekly basis and maintain a log of the observations. If visible emissions from any stack are seen, then the permittee shall determine the opacity of emissions by Reference Method 9 and perform an inspection of the control equipment for any necessary repairs.

b) The pressure drop across baghouses will be checked and recorded on a continuous basis and compared with the manufacturer's specified operating range to ensure compliance.

5. Specific Record Keeping Requirements:

a) The permittee shall maintain records of amount of ash processed.

b) The permittee shall maintain results of all compliance tests and calculations.

1) The permittee shall record each week the date, time and opacity of the visible emissions monitoring. In case of an exceedance, the permittee must record the reason (if known) and the measures taken to minimize or eliminate the exceedance.

2) Pressure drop across the baghouses will be monitored through the use of a strip recorder or other continuous recording device. The permittee shall maintain strip recorder (or other continuous recording device) charts. In case of out-of-range indications, the permittee must log the date and time of the exceedance, the reason for the exceedance (if known) and the measures taken to correct the exceedance.

6. Specific Reporting Requirements:

See Section F, Conditions 5, 6, 7 and 8.

7. Specific Control Equipment Operating Conditions:

a) The baghouse shall be maintained and operated as necessary to maintain compliance with permitted emission limitations contained in Regulation 401 KAR 59:010 and in accordance with manufacturer's specifications and/or standard operating practices.

b) Records regarding maintenance of the control equipment shall be maintained.

c) See Section E for further requirements.

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

Emissions Unit 12 Fly Ash Handling System

Description:

Machine Point 01 Fly Ash Silo

Control Equipment: Baghouse
Operating Rate: 71 tons/hour – Machine Point 01
Construction Commenced Date: June, 2002

Applicable Regulations:

Regulation 401 KAR 59:010, New Process Operations
Regulation 401 KAR 51:017, Prevention of significant deterioration of air quality applicable to major construction or modification commenced after September 22, 1982.

1. Operating Limitations:

Pursuant to Regulation 401 KAR 51:017, the Permittee shall install control equipment selected as BACT.

2. Emission Limitations:

a) Pursuant to Regulation 401 KAR 51:017 and 401 KAR 59:010, the permittee shall not cause to be discharged into the atmosphere from the above mentioned emissions units gases which exhibit twenty (20) percent opacity or greater.

b) Pursuant to 401 KAR 51:017, the baghouse utilized shall exhibit a design control efficiency of at least 99 %.

c) Pursuant to State Regulation 401 KAR 59:010, particulate matter emissions shall not exceed $[3.59 (P)^{0.62}]$ lbs/hr based on a three-hour average, where P is the processing rate in tons/hr.

3. Testing Requirements:

a) Pursuant to Regulation 401 KAR 59:010, the permittee shall determine the opacity of emissions from each stack by EPA Reference Method 9 annually, or more frequently if requested by the Division for Air Quality.

b) EPA Reference Method 5 or Method 17 shall be performed as required by the Division for Air Quality to determine particulate matter concentration.

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

4. Specific Monitoring Requirements:

a) The permittee shall perform a qualitative visual observation of the opacity of emissions from each stack on a weekly basis and maintain a log of the observations. If visible emissions from any stack are seen, then the permittee shall determine the opacity of emissions by Reference Method 9 and perform an inspection of the control equipment for any necessary repairs.

b) The pressure drop across baghouses will be checked and recorded on a continuous basis and compared with the manufacturer's specified operating range to ensure compliance.

5. Specific Record Keeping Requirements:

a) The permittee shall maintain records of amount of ash processed.

b) The permittee shall maintain results of all compliance tests and calculations.

1) The permittee shall record each week the date, time and opacity of the visible emissions monitoring. In case of an exceedance, the permittee must record the reason (if known) and the measures taken to minimize or eliminate the exceedance.

3) Pressure drop across the baghouses will be monitored through the use of a strip recorder or other continuous recording device. The permittee shall maintain strip recorder (or other continuous recording device) charts. In case of out-of-range indications, the permittee must log the date and time of the exceedance, the reason for the exceedance (if known) and the measures taken to correct the exceedance.

6. Specific Reporting Requirements:

See Section F, Conditions 5, 6, 7 and 8.

7. Specific Control Equipment Operating Conditions:

a) The baghouse shall be maintained and operated as necessary to maintain compliance with permitted emission limitations contained in Regulation 401 KAR 59:010 and in accordance with manufacturer's specifications and/or standard operating practices.

b) Records regarding maintenance of the control equipment shall be maintained.

c) See Section E for further requirements.

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

Emissions Unit 13 Limestone Prep System

Description:

Machine Point 01 – Limestone Thermal Drying
Machine Point 02 – Crushing

Control Equipment: Baghouse and Enclosure
Operating Rate: 30 tons/hour
Construction Commenced Date: June, 2002

Applicable Regulations:

Regulation 401 KAR 60:670, incorporating by reference 40 CFR 60 Subpart OOO, Standards of Performance for Nonmetallic Mineral Processing Plants, as modified by Section 3 of 401 KAR 60:670.
Regulation 401 KAR 51:017, Prevention of significant deterioration of air quality applicable to major construction or modification commenced after September 22, 1982.

1. Operating Limitations:

Pursuant to Regulation 401 KAR 51:017, the Permittee shall install control equipment selected as BACT.

2. Emission Limitations:

a) Pursuant to 401 KAR 51:017, emissions of particulate shall be controlled by a baghouse with a design control efficiency of at least 99 %.

b) Pursuant to 401 KAR 60:670, emissions of particulate shall not exceed 0.05 gr/dscm and shall not exhibit greater than 7% opacity.

3. Testing Requirements:

a) Pursuant to Regulation 401 KAR 60:670, specifically 40 CFR 60.675(b)(2), the owner and/or operator shall use EPA Reference Method 9 and the procedures in 40 CFR 60.11 to determine opacity, annually.

b) EPA Reference Method 5 or Method 17 shall be performed as required by the Division for Air Quality to determine particulate matter concentration.

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

4. Specific Monitoring Requirements:

a) The permittee shall perform a qualitative visual observation of the opacity of emissions from each stack on a weekly basis and maintain a log of the observations. If visible emissions from any stack are seen, then the permittee shall determine the opacity of emissions by Reference Method 9 and perform an inspection of the control equipment for any necessary repairs.

b) The pressure drop across baghouses will be checked and recorded on a continuous basis and compared with the manufacturer's specified operating range to ensure compliance.

5. Reporting and Recordkeeping Requirements:

a) Reporting and Recordkeeping shall be done in compliance with the requirements contained within 401 KAR 60:670.

b) The permittee shall record each week the date, time and opacity of the visible emissions monitoring. In case of an exceedance, the permittee must record the reason (if known) and the measures taken to minimize or eliminate the exceedance.

c) Pressure drop across the baghouses will be monitored through the use of a strip recorder or other continuous recording device. The permittee shall maintain strip recorder (or other continuous recording device) charts. In case of out-of-range indications, the permittee must log the date and time of the exceedance, the reason for the exceedance (if known) and the measures taken to correct the exceedance.

d) Records of the limestone processed (tonnage) shall be maintained.

e) See Section F, Conditions 5, 6, 7 and 8.

6. Specific Reporting Requirements:

Pursuant to Regulation 401 KAR 60:670, specifically 40 CFR 60.676, the owner and/or operator shall submit written reports of the results of all performance tests conducted to demonstrate compliance with the standards of 40 CFR 60.672, including reports of opacity observations made using EPA Reference Method 9.

7. Specific Control Equipment Operating Conditions:

a) The facilities and baghouse shall be maintained and operated to ensure the emission unit is in compliance with applicable requirements of Regulation 401 KAR 60:670 and in accordance with manufacturer's specifications and/or standard operating practices.

b) Records regarding maintenance of the control equipment shall be maintained.

c) See Section E for further requirements.

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

Emissions Unit 14 Limestone Storage

Description:

Machine Point 01 – Limestone Silo

Control Equipment: Baghouse
Operating Rate: 30 tons/hour
Construction Commenced Date: June, 2002

Applicable Regulations:

Regulation 401 KAR 60:670, incorporating by reference 40 CFR 60 Subpart OOO, Standards of Performance for Nonmetallic Mineral Processing Plants, as modified by Section 3 of 401 KAR 60:670
Regulation 401 KAR 51:017, Prevention of significant deterioration of air quality applicable to major construction or modification commenced after September 22, 1982.

1. Operating Limitations:

Pursuant to Regulation 401 KAR 51:017, the Permittee shall install control equipment selected as BACT.

2. Emission Limitations:

a) Pursuant to 401 KAR 51:017, emissions of particulate shall be controlled by a baghouse with a design control efficiency of at least 99 %.

b) Pursuant to 401 KAR 60:670, emissions of particulate shall not exceed 0.05 gr/dscm and shall not exhibit greater than 7% opacity.

3. Testing Requirements:

a) Pursuant to Regulation 401 KAR 60:670, specifically 40 CFR 60.675(b)(2), the owner and/or operator shall use EPA Reference Method 9 and the procedures in 40 CFR 60.11 to determine opacity, annually.

b) EPA Reference Method 5 or Method 17 shall be performed as required by the Division to determine particulate matter concentration.

4. Specific Monitoring Requirements:

a) The permittee shall perform a qualitative visual observation of the opacity of emissions from each stack on a weekly basis and maintain a log of the observations. If visible emissions from any stack are seen, then the permittee shall determine the opacity of emissions by Reference Method 9 and perform an inspection of the control equipment for any necessary repairs.

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

b) The pressure drop across baghouses will be checked and recorded on a continuous basis and compared with the manufacturer's specified operating range to ensure compliance.

5. Reporting and Recordkeeping Requirements:

a) Reporting and Recordkeeping shall be done in compliance with the requirements contained within 401 KAR 60:670.

b) For visible emissions, the permittee shall record each week the date, time and opacity of the visible emissions monitoring. In case of an exceedance, the permittee must record the reason (if known) and the measures taken to minimize or eliminate the exceedance.

c) Pressure drop across the baghouses will be monitored through the use of a strip recorder or other continuous recording device. The permittee shall maintain strip recorder (or other continuous recording device) charts. In case of out-of-range indications, the permittee must log the date and time of the exceedance, the reason for the exceedance (if known) and the measures taken to correct the exceedance.

d) Records of the limestone processed (tonnage) shall be maintained.

e) See Section F, Conditions 5, 6, 7 and 8.

6. Specific Reporting Requirements:

Pursuant to Regulation 401 KAR 60:670, specifically 40 CFR 60.676, the owner and/or operator shall submit written reports of the results of all performance tests conducted to demonstrate compliance with the standards of 40 CFR 60.672, including reports of opacity observations made using EPA Reference Method 9.

7. Specific Control Equipment Operating Conditions:

a) The facilities and baghouse shall be maintained and operated to ensure the emission unit is in compliance with applicable requirements of Regulation 401 KAR 60:670 and in accordance with manufacturer's specifications and/or standard operating practices.

b) Records regarding maintenance of the control equipment shall be maintained.

c) See Section E for further requirements.

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

Emissions Unit 15 Limestone Unloading

Description:

Machine Point 01 – Limestone Truck Dump

Control Equipment: Wet Suppression or Dust Suppressant
Operating Rate: 30 tons/hour
Construction Commenced Date: June, 2002

Applicable Regulations:

Regulation 401 KAR 63:010, Fugitive emissions
Regulation 401 KAR 51:017, Prevention of significant deterioration of air quality applicable to major construction or modification commenced after September 22, 1982.

1. Operating Limitations:

a) Pursuant to Regulation 401 KAR 63:010, Section 3, reasonable precautions shall be taken to prevent particulate matter from become airborne. Such reasonable precautions shall include, when applicable, but not limited to the following:

1) application and maintenance of asphalt, water, or suitable chemicals on roads, material stockpiles, and other surfaces which can create airborne dust; and

2) installation and use of compaction or other measures to suppress the dust emissions during handling.

b) Pursuant to Regulation 401 KAR 63:010, Section 3, discharge of visible fugitive dust emissions beyond the property line is prohibited.

c) Pursuant to Regulation 401 KAR 51:017, the permittee shall install control methods selected as BACT. See above.

2. Emission Limitations:

None

3. Testing Requirements:

None

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

4. Specific Monitoring Requirements:

The Permittee shall monitor fugitive emissions from the limestone truck dump as required by BACT.

5. Reporting and Recordkeeping Requirements:

Records of limestone processed (tonnage) shall be maintained.

6. Specific Reporting Requirements:

See Section F, Conditions 5, 6, 7 and 8.

6. Specific Control Equipment Operating Conditions:

a) The control equipment (including, but not limited to, use of dust suppressant/foam, and wet suppression) shall be operated as necessary to maintain compliance with applicable requirements of Regulation 401 KAR 63:010, and in accordance with manufacturer's specifications and/or standard operating practices.

b) Records regarding the maintenance of the control equipment shall be maintained.

c) See Section E for further requirements.

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

Emission Unit 16 Cooling Tower

Description:

Control Equipment: 0.005% Drift Eliminators
Operating Rate: 2600 GPM
Construction Commenced Date: June, 2002

Applicable Regulations:

Regulation 40 CFR 63, Subpart Q, National Emission Standards for Hazardous Air Pollutants for Industrial Process Cooling Towers
Regulation 401 KAR 63:010, Fugitive emissions
Regulation 401 KAR 51:017, Prevention of significant deterioration of air quality applicable to major construction or modification commenced after September 22, 1982.

Applicable Requirements:

1. **Operating Limitations:**

   a) Pursuant to Regulation 401 KAR 63:010, Section 3, reasonable precautions shall be taken to prevent particulate matter from becoming airborne.

   b) Pursuant to 40 CFR 63, Subpart Q, the permittee shall not use any chromium-based water treatment chemicals in the cooling tower.

2. **Emission Limitations:**

   a) The cooling towers shall utilize 0.005% Drift Eliminators.

   b) Pursuant to Regulation 401 KAR 63:010, Section 3, reasonable precautions shall be taken to prevent particulate matter from becoming airborne.

3. **Testing Requirements:**

   None

4. **Specific Monitoring Requirements:**

   None

5. **Specific Record Keeping Requirements:**

   a) The permittee shall maintain the records of manufacturer's design of the Drift Eliminators.

SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

6. Specific Reporting Requirements:

See Section F, Conditions 5, 6, 7 and 8.

7. Specific Control Equipment Operating Conditions:

a) The Drift Eliminators shall be operated in accordance with manufacturer's specifications and/or standard operating practices.

b) See Section E for further requirements

SECTION C - INSIGNIFICANT ACTIVITIES

The following listed activities have been determined to be insignificant activities for this source pursuant to Regulation 401 KAR 50:035, Section 5(4). While these activities are designated as insignificant the permittee must comply with the applicable regulation and some minimal level of periodic monitoring may be necessary.

	Description	Generally Applicable Regulation
1.	Storage vessels containing petroleum or organic liquids with a capacity of less than 10,567 gallons, providing (a) the vapor pressure of the stored liquid is less than 1.5 psia at storage temperature, or (b) vessels greater than 580 gallons with stored liquids having greater than 1.5 psia vapor pressure are equipped with a permanent submerged fill pipe.	NA
2.	Storage vessels containing inorganic aqueous liquids, except inorganic acids with boiling points below the maximum storage temperature at atmospheric pressure.	NA
3.	#2 oil-fired space heaters or ovens rated at less than two million BTU per hour actual heat input, provided the maximum sulfur content is less than 0.5% by weight.	NA
4.	Machining of metals, providing total solvent usage at the source for this activity does not exceed 60 gallons per month.	NA
5.	Internal combustion engines using only gasoline, diesel fuel, natural gas, or LP gas rated at 50 hp or less.	NA
6.	Volatile organic compound and hazardous air pollutant storage containers, as follows: (a) Tanks, less than 1,000 gallons, and throughput less than 12,000 gallons per year; (b) Lubricating oils, hydraulic oils, machining oils, and machining fluids.	NA

SECTION C - INSIGNIFICANT ACTIVITIES (CONTINUED)

	Description	Generally Applicable Regulation
7.	Machining where an aqueous cutting coolant continuously floods machining interface.	NA
8.	Degreasing operations, using less than 145 gallons per year.	NA
9.	Maintenance equipment, not emitting HAPs: brazing, cutting torches, soldering, welding.	NA
10.	Underground conveyors.	NA
11.	Coal bunker and coal scale exhausts.	401 KAR 63:010
12.	Blowdown (sight glass, boiler, compressor, pump, cooling tower).	NA
13.	Stationary fire pumps.	NA
14.	Grinding and machining operations vented through fabric filters, scrubbers, mist eliminators, or electrostatic precipitators (e.g., deburring, buffing, polishing, abrasive blasting, pneumatic conveying, woodworking).	401 KAR 63:010
15.	Vents from ash transport systems not operated at positive pressure.	401 KAR 63:010
16.	Wastewater treatment (for stream less than 1% oil and grease).	NA
17.	Heat exchanger cleaning and repair.	NA
18.	Repair and maintenance of ESP, fabric filters, etc.	NA
19.	Any operation using aqueous solution (less than 1% VOC).	NA
20.	Laboratory fume hoods and vents used exclusively for chemical or physical analysis, or for “bench scale production” R&D facilities.	NA

SECTION C - INSIGNIFICANT ACTIVITIES (CONTINUED)

	Description	Generally Applicable Regulation
21.	Machinery lubricant and waxes, including oils, greases or other lubricants applied as temporary protective coatings.	NA
22.	Purging of gas lines and vessels related to routine maintenance.	NA
23.	Flue gas conditioning systems.	NA
24.	Equipment used to collect spills.	NA
25.	Ash pond and ash pond maintenance.	NA
26.	Emergency generators: gasoline-powered (<110 hp), diesel-powered (<1600 hp).	NA
27.	Lime handling system; including truck unloading (for scrubber lime and stabilization lime), and lime feed systems.	401 KAR 63:010
28.	Fly ash storage silos (both loading and unloading).	401 KAR 63:010
29.	Off-specification used oil fuel burned for energy recovery	NA
30.	Bottom ash screening and sizing system.	401 KAR 63:010
31.	Railcar/truck flyash loadout.	401 KAR 63:010

SECTION D - SOURCE EMISSION LIMITATIONS AND TESTING REQUIREMENTS

1. PM10, sulfur dioxide, nitrogen oxides and visible (opacity) emissions, as measured by methods referenced in Regulation 401 KAR 50:015, Section 1, shall not exceed the respective limitations specified herein.

2. The permittee shall install, operate, and optimize a Selective Non-Catalytic Reduction (SNCR) system for the reduction of NO_x emissions from Unit 3. The optimization study must begin no later than 6 months after operation commences. Sixty days prior to initiating the study, the permittee shall submit a detailed optimization protocol for Division approval including the specific dates of the optimization study and the boiler operating conditions to be tested.

3. he permittee shall complete a 12-month study to determine the optimized performance of the CFB/SNCR system within 18 months of commercial operation. The NO_x emission limit of 0.07 lbs/mmBTU is waived for the specific SNCR optimization study activity. The Kentucky Division for Air Quality shall have 60 days to review the optimization study. Should the optimization study indicate that 0.07 lbs./ MMBTU is unachievable, the NOx emissions rate shall be the optimized rate up to a maximum of 0.10 lbs./MMBTU.

4. The CFB shall be performance tested initially for compliance with the emission standards for particulate matters (PM and PM10), sulfur dioxide (SO_2), nitrogen oxides (NO_x), carbon monoxide (CO), beryllium (Be), and the applicable hazardous air pollutants. Appropriate test methods shall be used (see 401 KAR 50:015).

5. After the initial compliance test as stated above, continuing compliance with the emission standards shall be determined by continuous emission monitors for Opacity, NO_x, and SO_2. Ongoing compliance with the emission standard for CO shall be determined by monitoring for CO emissions using a continuous emission monitor. Ongoing compliance with the emission standards for beryllium and the applicable hazardous air pollutants (HAPs) shall be based on quarterly fuel analyses and calculations using established baseline factors developed during the initial compliance test.

SECTION E - SOURCE CONTROL EQUIPMENT REQUIREMENTS

Pursuant to 401 KAR 50:055, Section 2(5), at all times, including periods of startup, shutdown and malfunction, owners and operators shall, to the extent practical, maintain and operate any affected facility including associated air pollution control equipment in a manner consistent with good air pollution control practice for minimizing emissions. Determination of whether acceptable operating and maintenance procedures are being used will be based on information available to the Division which may include, but is not limited to, monitoring results, opacity observations, review of operating and maintenance procedures, and inspection of the source.

SECTION F - MONITORING, RECORD KEEPING, AND REPORTING REQUIREMENTS

1. When continuing compliance is demonstrated by periodic testing or instrumental monitoring, the permittee shall compile records of required monitoring information that include:
   a) Date, place as defined in this permit, and time of sampling or measurements.
   b) Analyses performance dates;
   c) Company or entity that performed analyses;
   d) Analytical techniques or methods used;
   e) Analyses results; and
   f) Operating conditions during time of sampling or measurement;

2. Records of all required monitoring data and support information, including calibrations, maintenance records, and original strip chart recordings, and copies of all reports required by the Division for Air Quality, shall be retained by the permittee for a period of five years and shall be made available for inspection upon request by any duly authorized representative of the Division for Air Quality.

3. The permittee shall allow the Cabinet or authorized representatives to perform the following:
   a) Enter upon the premises where a source is located or emissions-related activity is conducted, or where records are kept;
   b) Have access to and copy, at reasonable times, any records required by the permit:
      i. During normal office hours, and
      ii. During periods of emergency when prompt access to records is essential to proper assessment by the Cabinet;
   c) Inspect, at reasonable times, any facilities, equipment (including monitoring and pollution control equipment), practices, or operations required by the permit. Reasonable times shall include, but are not limited to the following:
      i. During all hours of operation at the source,
      ii. For all sources operated intermittently, during all hours of operation at the source and the hours between 8:00 a.m. and 4:30 p.m., Monday through Friday, excluding holidays, and
      iii. During an emergency; and
   d) Sample or monitor, at reasonable times, substances or parameters to assure compliance with the permit or any applicable requirements. Reasonable times shall include, but are not limited to the following:
      i. During all hours of operation at the source,
      ii. For all sources operated intermittently, during all hours of operation at the source and the hours between 8:00 a.m. and 4:30 p.m., Monday through Friday, excluding holidays, and
      iii. During an emergency.

SECTION F - MONITORING, RECORD KEEPING, AND REPORTING REQUIREMENTS (CONTINUED)

4. No person shall obstruct, hamper, or interfere with any Cabinet employee or authorized representative while in the process of carrying out official duties. Refusal of entry or access may constitute grounds for permit revocation and assessment of civil penalties.

5. Reports of any monitoring required by this permit shall be reported to the Division's Ashland Regional Office no later than the six-month anniversary date of this permit and every six months thereafter during the life of this permit. The permittee may shift to semi-annual reporting on a calendar year basis upon approval of the regional office. If calendar year reporting is approved, the semi-annual reports are due January 30th and July 30th of each year. All reports shall be certified by a responsible official pursuant to Section 23 of Regulation 401 KAR 52:020, Title V Permits. All deviations from permit requirements shall be clearly identified in the reports.

6. a) In accordance with the provisions of Regulation 401 KAR 50:055, Section 1, the owner or operator shall notify the Division for Air Quality's Ashland Regional Office concerning startups, shutdowns, or malfunctions as follows:

   1) When emissions during any planned shutdowns and ensuing startups will exceed the standards, notification shall be made no later than three (3) days before the planned shutdown, or immediately following the decision to shut down, if the shutdown is due to events which could not have been foreseen three (3) days before the shutdown.

   2) When emissions due to malfunctions, unplanned shutdowns and ensuing startups are or may be in excess of the standards, notification shall be made as promptly as possible by telephone (or other electronic media) and shall cause written notice upon request.

b) In accordance with the provisions of 401 KAR 52:020, Section 24, the owner or operator shall report emission related exceedances from permit requirements including those attributed to upset conditions (other than emission exceedances covered by general condition 6 a. above) to the Division for Air Quality's Ashland Regional Office within 30 days. Other deviations from permit requirements shall be included in the semiannual report required by general condition F.5.

SECTION F - MONITORING, RECORD KEEPING, AND REPORTING REQUIREMENTS (CONTINUED)

7. Pursuant to Regulation 401 KAR 52:020, Title V Permits, Section 21, the permittee shall certify compliance with the terms and conditions contained in this permit, annually on the permit issuance anniversary date or by January 30th of each year if calendar year reporting is approved by the regional office, by completing and returning a Compliance Certification Form (DEP 7007CC) (or an approved alternative) to the Division for Air Quality's Ashland Regional Office in accordance with the following requirements:
   a) Identification of each term or condition of the permit that is the basis of the certification;
   b) The compliance status regarding each term or condition of the permit;
   c) Whether compliance was continuous or intermittent; and
   d) The method used for determining the compliance status for the source, currently and over the reporting period, pursuant to 401 KAR 52:020, Section 24.
   e) The certification shall be postmarked by the thirtieth (30) day following the applicable permit issuance anniversary date, or by January 30th of each year if calendar year reporting is approved by the regional office. Annual compliance certifications should be mailed to the following addresses:

   Division for Air Quality
   Ashland Regional Office
   P.O. Box 1507
   Ashland, KY 41105-1507

   U.S. EPA Region 4
   Air Enforcement Branch
   Atlanta Federal Center
   61 Forsyth Street
   Atlanta, GA 30303-8960

   Division for Air Quality
   Central Files
   803 Schenkel Lane
   Frankfort, KY 40601

8. In accordance with Regulation 401 KAR 52:020, Section 23, the permittee shall provide the Division with all information necessary to determine its subject emissions within thirty (30) days of the date the KEIS emission report is mailed to the permittee.

9. Pursuant to Section VII.3 of the policy manual of the Division for Air Quality as referenced by Regulation 401 KAR 50:016, Section 1(1), results of performance test(s) required by the permit shall be submitted to the Division by the source or its representative within forty-five days after the completion of the fieldwork.

10. Within 18 months of startup of the Unit 08 CFB, the permittee shall install and commence operation of an ambient monitoring station for measurement of ambient ozone. The ozone monitoring equipment shall be operated and maintained in accordance with 40 CFR 58, Appendix B. If no ozone exceedances are observed for a period of three (3) consecutive years of operation of the ozone monitoring equipment, the permittee may cease the monitoring program.

SECTION G - GENERAL CONDITIONS

(a) General Compliance Requirements

1. The permittee shall comply with all conditions of this permit. A noncompliance shall be (a) violation(s) of state regulation 401 KAR 52:020 and for federally enforceable permit conditions is also a violation of Federal Statute 42 USC 7401 through 7671q (the Clean Air Act) and is grounds for enforcement action including but not limited to the termination, revocation and reissuance, or revision of this permit.

2. The filing of a request by the permittee for any permit revision, revocation, reissuance, or termination, or of a notification of a planned change or anticipated noncompliance, shall not stay any permit condition.

3. This permit may be revised, revoked, reopened and reissued, or terminated for cause. The permit will be reopened for cause and revised accordingly under the following circumstances:
   a) If additional applicable requirements become applicable to the source and the remaining permit term is three (3) years or longer. In this case, the reopening shall be completed no later than eighteen (18) months after promulgation of the applicable requirement. A reopening shall not be required if compliance with the applicable requirement is not required until after the date on which the permit is due to expire, unless this permit or any of its terms and conditions have been extended pursuant to Regulation 401 KAR 52:020;
   b) The Cabinet or the U. S. EPA determines that the permit must be revised or revoked to assure compliance with the applicable requirements;
   c) The Cabinet or the U. S. EPA determines that the permit contains a material mistake or that inaccurate statements were made in establishing the emissions standards or other terms or conditions of the permit;

   Proceedings to reopen and reissue a permit shall follow the same procedures as apply to initial permit issuance and shall affect only those parts of the permit for which cause to reopen exists. Reopenings shall be made as expeditiously as practicable. Reopenings shall not be initiated before a notice of intent to reopen is provided to the source by the Division, at least thirty (30) days in advance of the date the permit is to be reopened, except that the Division may provide a shorter time period in the case of an emergency.

4. The permittee shall furnish to the Division, in writing, information that the Division may request to determine whether cause exists for modifying, revoking and reissuing, or terminating the permit, or to determine compliance with the permit. [401 KAR 52:020, Permits, Section 7]

5. The permittee, upon becoming aware that any relevant facts were omitted or incorrect information was submitted in the permit application, shall promptly submit such supplementary facts or corrected information to the permitting authority.

SECTION G - GENERAL CONDITIONS (CONTINUED)

6. Any condition or portion of this permit that becomes suspended or is ruled invalid as a result of any legal or other action shall not invalidate any other portion or condition of this permit. [401 KAR 52:020, Permits, Section 19]

7. The permittee shall not use as a defense in an enforcement action the contention that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance. [401 KAR 52:020, Permits, Section 24]

8. Except as identified as state-origin requirements in this permit, all terms and conditions contained herein shall be enforceable by the United States Environmental Protection Agency and citizens of the United States.

9. This permit shall be subject to suspension if the permittee fails to pay all emissions fees within 90 days after the date of notice as specified in 401 KAR 50:038, Section 3(6). [401 KAR 52:020, Permits, Section 3]

10. Nothing in this permit shall alter or affect the liability of the permittee for any violation of applicable requirements prior to or at the time of permit issuance. [401 KAR 52:020, Permits, Section 11]

11. This permit shall not convey property rights or exclusive privileges. [401 KAR 52:020, Permits, Section 3]

12. Issuance of this permit does not relieve the permittee from the responsibility of obtaining any other permits, licenses, or approvals required by the Kentucky Cabinet for Natural Resources and Environmental Protection or any other federal, state, or local agency.

13. Nothing in this permit shall alter or affect the authority of U.S. EPA to obtain information pursuant to Federal Statute 42 USC 7414, Inspections, monitoring, and entry. [401 KAR 52:020, Permits, Section 3]

14. Nothing in this permit shall alter or affect the authority of U.S. EPA to impose emergency orders pursuant to Federal Statute 42 USC 7603, Emergency orders. [401 KAR 52:020, Permits, Section 11]

15. Permit Shield: Except as provided in State Regulation 401 KAR 52:020, Permits, Section 11, compliance by the affected facilities listed herein with the conditions of this permit shall be deemed to be compliance with all applicable requirements identified in this permit as of the date of issuance of this permit.

16. Fugitive emissions shall be controlled in accordance with 401 KAR 63:010

SECTION G - GENERAL CONDITIONS (CONTINUED)

17. The permittee may conduct test burns of materials other than those listed in the permit without a construction permit or a reopening of this permit provided that:

    a) Notification is provided to the Division at least 30 days prior to initiation of the test burning of the material;

    b) The source complies with all applicable regulations and emission limitations;

    c) The permittee agrees to perform such additional testing as may be required by the Division;

18. Emission limitations listed in this permit shall apply at all times except during periods of startup, shutdown, or malfunctions, and opacity limitations listed in this permit shall apply at all times except during periods of startup and shutdown in accordance with Regulation 401 KAR 50:055, provided the permittee complies with the requirements of Regulation 401 KAR 50:055.

19. Pursuant to Section VII 2(1) of the policy manual of the Division for Air Quality as referenced by Regulation 401 KAR 50:016, Section 1(1), at least one month prior to the date of the required performance test, the permittee shall complete and return a Compliance Test Protocol (Form DEP 6027) to the Division's Frankfort Central Office and the Division's Technical Services Branch. Pursuant to Regulation 401 KAR 50:045, Section 5, the Division shall be notified of the actual test date at least ten (10) days prior to the test.

(b) Permit Expiration and Reapplication Requirements

1. This permit shall remain in effect for a fixed term of five (5) years following the original date of issuance. Permit expiration shall terminate the source's right to operate unless a timely and complete renewal application has been submitted to the Division at least six months prior to the expiration date of the permit. Upon a timely and complete submittal, the authorization to operate within the terms and conditions of this permit, including any permit shield, shall remain in effect beyond the expiration date, until the renewal permit is issued or denied by the Division. [401 KAR 50:035, Permits, Section 12]

2. Terms and Conditions in this permit established pursuant to the construction authority of 401 KAR 51:017 or 401 KAR 51:052 shall not expire.

(c) Permit Revisions

1. A minor permit revision procedure may be used for permit revisions involving the use of economic incentive, marketable permit, emission trading, and other similar approaches, to the extent that these minor permit revision procedures are explicitly provided for in the SIP or in applicable requirements and meet the relevant requirements of Regulation 401 KAR 50:035, Section 15.

SECTION G - GENERAL CONDITIONS (CONTINUED)

2. This permit is not transferable by the permittee. Future owners and operators shall obtain a new permit from the Division for Air Quality. The new permit may be processed as an administrative amendment if no other change in this permit is necessary, and provided that a written agreement containing a specific date for transfer of permit responsibility coverage and liability between the current and new permittee has been submitted to the permitting authority thirty (30) days in advance of the transfer.

(d) Construction, Start-Up, and Initial Compliance Demonstration Requirements

1. Construction of process and/or air pollution control equipment authorized by this permit shall be conducted and completed only in compliance with the conditions of this permit.

2. Within thirty (30) days following commencement of construction, and within fifteen (15) days following start-up, and attainment of the maximum production rate specified in the permit application, or within fifteen (15) days following the issuance date of this permit, whichever is later, the permittee shall furnish to the Division for Air Quality's Ashland Regional Office in writing, with a copy to the Division's Frankfort Central Office, notification ofthe following:

a. The date when construction commenced.
b. The date of start-up of the affected facilities listed in this permit.
c. The date when the maximum production rate specified in the permit application was achieved.

3. Pursuant to 401 KAR 52:020, Permits, unless construction is commenced on or before eighteen (18) months after the date of issue of this permit, or if construction is commenced and then stopped for any consecutive period of eighteen (18) months or more, or if construction is not completed within eighteen (18) months of the scheduled completion date, then the construction and operating authority granted by this permit for those affected facilities for which construction was not completed shall immediately become invalid. Extensions of the time periods specified herein may be granted by the Division upon a satisfactory request showing that an extension is justified.

4. Operation of the affected facilities for which construction is authorized by this permit shall not commence until compliance with the applicable standards specified herein has been demonstrated pursuant to 401 KAR 50:055, except as provided in Section I of this permit.

5. This permit shall allow time for the initial start-up, operation, and compliance demonstration of the affected facilities listed herein. However, within sixty (60) days after achieving the maximum production rate at which the affected facilities will be operated but no later than 180 days after initial start-up of such facilities, the permittee shall conduct a performance demonstration (test) on the affected facilities for particulate matter; sulfur dioxide (SO_2); nitrogen oxides (NO_x); carbon monoxide (CO); fluoride as HF; beryllium; Hydrogen Chloride (HC1); Lead (Pb); and Mercury (Hg), in accordance with 401 KAR 50:055, General compliance requirements. These performance tests must

also be conducted in accordance with General Provisions G(d)6 of this permit and the permittee must furnish to the Division for Air Quality's Frankfort Central Office a written report of the results of such performance test.

6. Pursuant to Section VII 2.(1) of the policy manual of the Division for Air Quality as referenced by 401 KAR 50:016, Section 1.(1), at least one month prior to the date of the required performance test, the permittee shall complete and return a Compliance Test Protocol (Form DEP 6027) to the Division's Frankfort Central Office. Pursuant to 401 KAR 50:045, Section 5, the Division shall be notified of the actual test date at least ten (10) days prior to the test.

(e) Acid Rain Program Requirements

1. If an applicable requirement of Federal Statute 42 USC 7401 through 7671q (the Clean Air Act) is more stringent than an applicable requirement promulgated pursuant to Federal Statute 42 USC 7651 through 7651o (Title IV of the Act), both provisions shall apply, and both shall be state and federally enforceable.

2. The source shall comply with all requirements and conditions of the Title IV, Acid Rain Permit (Section J) and the Phase II permit application (including the Phase II NO_x compliance plan, if applicable) issued for this source. The source shall also comply with all requirements of any revised or future acid rain permit(s) issued to this source.

(f) Emergency Provisions

1. An emergency shall constitute an affirmative defense to an action brought for noncompliance with the technology-based emission limitations if the permittee demonstrates through properly signed contemporaneous operating logs or other relevant evidence that:

a) An emergency occurred and the permittee can identify the cause of the emergency;
b) The permitted facility was at the time being properly operated;
c) During an emergency, the permittee took all reasonable steps to minimize levels of emissions that exceeded the emissions standards or other requirements in the permit; and
d) The permittee notified the Division as promptly as possible and submitted written notice of the emergency to the Division within two working days after the time when emission limitations were exceeded due to the emergency. The notice shall meet the requirements of 401 KAR 52:020, Permits, Section 24, and include a description of the emergency, steps taken to mitigate emissions, and the corrective actions taken. This requirement does not relieve the source of any other local, state or federal notification requirements.

2. Emergency conditions listed in General Condition (f)1 above are in addition to any emergency or upset provision(s) contained in an applicable requirement.

3. In an enforcement proceeding, the permittee seeking to establish the occurrence of an emergency shall have the burden of proof. [401 KAR 52:020, Permits, Section 24]

(g) Risk Management Provisions

1. The permittee shall comply with all applicable requirements of 40 CFR Part 68, Risk Management Plan provisions. If required, the permittee shall:

a) Submit a Risk Management Plan to U.S.EPA, Region 4 with a copy to this Division and comply with the Risk Management Program by June 21, 1999 or a later date specified by the U.S.EPA.

b) Submit additional relevant information if requested by the Division or the U.S. EPA.

(h) Ozone depleting substances

1. The permittee shall comply with the standards for recycling and emissions reduction pursuant to 40 CFR 82, Subpart F, except as provided for Motor Vehicle Air Conditioners (MVACs) in Subpart B:

a) Persons opening appliances for maintenance, service, repair, or disposal shall comply with the required practices contained in 40 CFR 82.156.

b) Equipment used during the maintenance, service, repair, or disposal of appliances shall comply with the standards for recycling and recovery equipment contained in 40 CFR 82.158.

c) Persons performing maintenance, service, repair, or disposal of appliances shall be certified by an approved technician certification program pursuant to 40 CFR 82.161.

d) Persons disposing of small appliances, MVACs, and MVAC-like appliances (as defined at 40 CFR 82.152) shall comply with the recordkeeping requirements pursuant to 40 CFR 82.166.

e) Persons owning commercial or industrial process refrigeration equipment shall comply with the leak repair requirements pursuant to 40 CFR 82.156.

f) Owners/operators of appliances normally containing 50 or more pounds of refrigerant shall keep records of refrigerant purchased and added to such appliances pursuant to 40 CFR 82.166.

2. If the permittee performs service on motor (fleet) vehicle air conditioners containing ozone-depleting substances, the source shall comply with all applicable requirements as specified in 40 CFR 82, Subpart B, Servicing of Motor Vehicle Air Conditioners.

SECTION H – ALTERNATE OPERATING SCENARIOS

N/A

SECTION I – COMPLIANCE SCHEDULE

N/A

SECTION J - PHASE II ACID RAIN PERMIT

ACID RAIN PERMIT CONTENTS

1) Statement of Basis

2) SO_2 allowances allocated under this permit and NOx requirements for each affected unit.

3) Comments, notes and justifications regarding permit decisions and changes made to the permit application forms during the review process, and any additional requirements or conditions.

4) The permit application submitted for this source. The owners and operators of the source must comply with the standard requirements and special provisions set forth in the Phase II Application.

5) Summary of Actions

Statement of Basis:

Statutory and Regulatory Authorities: In accordance with KRS 224.10-100 and Titles IV and V of the Clean Air Act, the Kentucky Natural Resources and Environmental Protection Cabinet, Division for Air Quality issues this permit pursuant to Regulations 401 KAR 50:035, Permits, 401 KAR 50:072, Acid Rain Permit, and Federal Regulation 40 CFR Part 76.

PERMIT (Conditions)

Plant Name: Hugh L. Spurlock Station
Affected Unit: 01

- **SO_2 Allowance Allocations and NO_x Requirements for the affected unit:**

SO_2 Allowances	**Year**				
	2000	2001	2002	2003	2004
Tables 2, 3 or 4 of 40 CFR Part 73	9,821*	9,821*	9,821*	9,821*	9,821*

NO_x Requirements	
NO_x Limits	Pursuant to 40 CFR Part 76, the Kentucky Division for Air Quality approves a NO_x standard emissions limitation compliance plan for unit 1. The NO_x compliance plan is effective from January 1, 2000 through December 31, 2004. Under the NO_x compliance plan, annual average NO_x emission rate for each year, determined in accordance with 40 CFR Part 75, shall not exceed the applicable emission limitation, under 40 CFR 76.5(a)(2), of 0.50 lb/mmBTU for dry bottom wall-fired boilers. In addition to the described NO_x compliance plan, this unit shall comply with all other applicable requirements of 40 CFR Part 76, including the duty to reapply for a NO_x compliance plan and requirements covering excess emissions.

* The number of allowances allocated to Phase II affected units by the U.S. EPA may change under 40 CFR part 73. In addition, the number of allowances actually held by an affected source in a unit account may differ from the number allocated by U. S. EPA. Neither of the aforementioned conditions necessitate a revision to the unit SO_2 allowance allocations identified in this permit (See 40 CFR 72.84).

PERMIT (Conditions)

Plant Name: Hugh L. Spurlock Station
Affected Unit: 02

- **SO_2 Allowance Allocations and NO_x Requirements for the affected unit:**

SO_2 Allowances	**Year**				
	2000	2001	2002	2003	2004
Tables 2, 3 or 4 of 40 CFR Part 73	16,586*	16,586*	16,586*	16,586*	16,586*

NO_x Requirements	
NO_x Limits	Pursuant to 40 CFR Part 76, the Kentucky Division for Air Quality approves a NO_x standard emissions limitation compliance plan for unit 1. The NO_x compliance plan is effective from January 1, 2000 through December 31, 2004. Under the NO_x compliance plan, annual average NO_x emission rate for each year, determined in accordance with 40 CFR Part 75, shall not exceed the applicable emission limitation, under 40 CFR 76.5(a)(1), of 0.45 lb/mmBTU for tangentially fired boilers. If the unit is in compliance with its applicable emission limitation for each year of the plan, then the unit shall not be subject to the applicable limitation, under 40 CFR 76.7(a)(1), of 0.40 lb/mmBTU until calendar year 2008. In addition to the described NO_x compliance plan, this unit shall comply with all other applicable requirements of 40 CFR Part 76, including the duty to reapply for a NO_x compliance plan and requirements covering excess emissions.

* The number of allowances allocated to Phase II affected units by the U.S. EPA may change under 40 CFR part 73. In addition, the number of allowances actually held by an affected source in a unit account may differ from the number allocated by U. S. EPA. Neither of the aforementioned conditions necessitate a revision to the unit SO_2 allowance allocations identified in this permit (See 40 CFR 72.84).

PERMIT (Conditions)

Plant Name: Hugh L. Spurlock Station
Affected Unit: 03 (Emission Unit 08)

- **SO_2 Allowance Allocations and NO_x Requirements for the affected unit:**

SO_2 Allowances	**Year**				
	2000	2001	2002	2003	2004
Tables 2, 3 or 4 of 40 CFR Part 73	0*	0*	0*	0*	0*

NO_x Requirements	
NO_x Limits	N/A**

* The number of allowances allocated to Phase II affected units by the U.S. EPA may change under 40 CFR part 73. In addition, the number of allowances actually held by an affected source in a unit account may differ from the number allocated by U.S. EPA. Neither of the aforementioned conditions necessitate a revision to the unit SO_2 allowance allocations identified in this permit (See 40 CFR 72.84).

** This unit currently does not have applicable NO_x limits set by 40 CFR, part 76**.**

PERMIT (Conditions)

- **Comments, Notes, and Justifications:**

  Unit 03 will be constructed after the SO_2 allocation date; therefore this unit will have no SO_2 allowances allocated by U.S. EPA and must obtain offsets.

  Unit 03 does not have applicable NO_x limits set by 40 CFR part 76.

- **Permit Application:** Attached
  The Phase II Permit Application is a part of this permit and the source must comply with the standard requirements and special provisions set forth in the Phase II Application.

- **Summary of Actions:**

  Previous Actions:

  1. Draft Phase II Permit (# AR-96-11) including SO_2 compliance plan was issued for public comment on September 19, 1996.

  2. Final Phase II Permit (# AR-96-11) including SO_2 compliance plan was issued on December 11, 1996.

  3. Draft Phase II Permit (# A-98-010) was issued with the revised SO_2 allowance allocations and NO_x emissions standard for public comment on December 23, 1998.

  4. Final Phase II Permit (# A-98-010) was issued with the 1998 revised SO_2 allowance allocations and NO_x emission standard on June 1, 1999.

  5. Draft Phase II Permit has been proposed for public comment.

  Present Action:

  1. Final Phase II permit issued with Title V